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RETRO GAMER*

ISSUE NINE

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£5.99 UK • $13.95 Aus • $27.70 NZ
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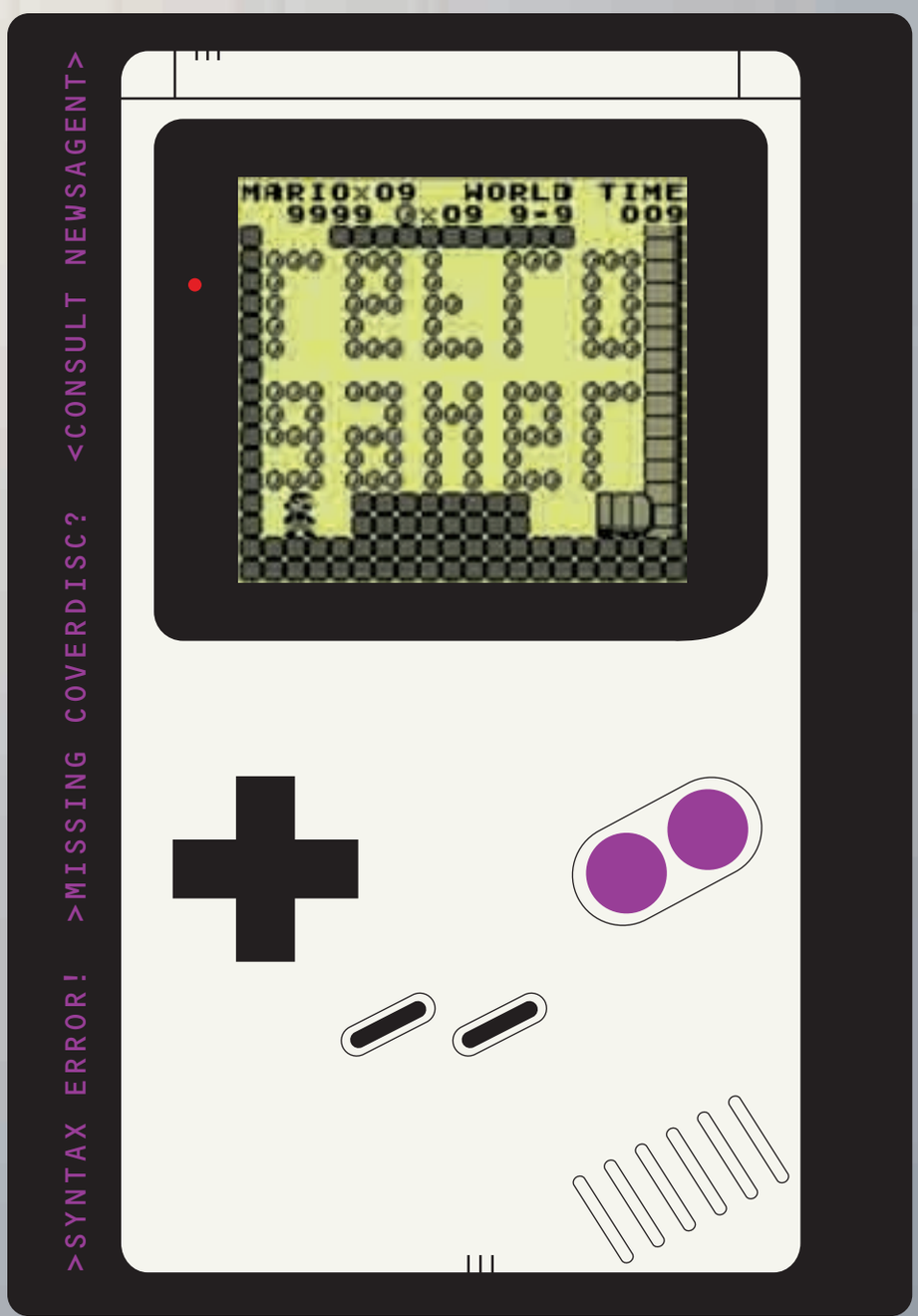

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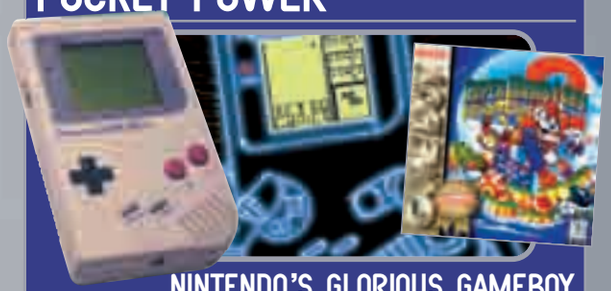

NINTENDO'S GLORIOUS GAMEBOY

AMIGA FOREVER

THE COMPLETE COMMODORE COMPUTER

YOUR TOP 100 GAMES

WHAT WILL BE NUMBER ONE?

PLUS LOADS MORE:

THE MIRRORSOFT STORY
COIN-OP CONVERSIONS
SPECTRUM SOUND

eMag

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<SMALL PRINT>
Distributed by
Comag, Tavistock Road, West
Drayton, Middlesex UB7 7QE,
England. Tel: 01895 444055.
Fax: 01895 433602

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Live Publishing Int Ltd
Europa House
Adlington Park
Macclesfield, Cheshire
SK10 4NP, UK
ISSN: 1742-3155

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hello

In this issue we complete the countdown to your favourite game ever. I must say that you lot have impeccable taste, because the top 50 is absolutely packed with amazing games. Saying that, I was surprised that Bust-a-Move/Puzzle Bobble didn't even make the top 100. Surely that's one of the best games ever!

Talking of top 100's, I was recently flicking through back issues of C&VG (seeking comfort after learning of its sad demise) when I came across a greatest game countdown much like ours. The poll appeared in the Nov 2001 issue, tying in with the magazine's 20th birthday, and it's amazing how different the results are. There are only three common games in the two top 10's, and best of all, our number one charts at just 43 in the C&VG chart! And our number three didn't even make their top 100! This probably reflects C&VG's slightly younger readership, but it is very interesting to compare the two charts. I certainly think it would be a great idea to run another best game survey a few years down the line to see if and how the results change.

OK, on with the show. With this issue out of the way, I'm off to play the retro remakes on the coverdisc. Someone give me a nudge when I need to start work on issue 10...

MARTYN CARROLL
EDITOR

Subscription prices

UK: £71.88 (12 issues)
Europe: £77.00 (12 issues)
Rest of world: £83.00 (12 issues)

Retro Gamer, ISSN number 1742 3155, is published monthly (twelve times per year) by Live Publishing at 1320 Route 9, Champlain, N.Y. 12919 for US$123 per year. Periodicals postage paid at Champlain, NY. POSTMASTER: Send address changes to Retro Gamer c/o Express Mag, P.O. Box 2769, Plattsburgh, NY 12901-1329.

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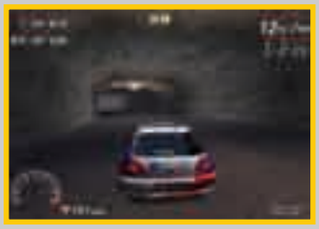
RETRO NEWS

NEWS-OLA[BG]

Sega Rally Returns

The rally classic races onto the PS2

Marking the tenth anniversary of the arcade original, next year sees the release of the first ever console-exclusive version of Sega Rally, only available on PS2. Produced by Jun Taniguchi (Sega Rally 2), there's a number of changes planned this time around, including a random course generator which changes the track layout, time, weather and road conditions for every race, forcing reliance on the navigator and offering a slightly difference experience every time. There are also loads of classic tracks, a new career and time attack mode and additional (as yet undisclosed) bonuses. We're a bit sad that the next game won't be debuting in the arcades, but still, expect to see Sega Rally 2005 heading around the corner next summer.



In related news, Sega has announced that Typing of the Dead, its completely barmy House of the Dead 2 spin-off, is also heading to the PS2. The game was originally released on PC and Dreamcast, and involves destroying the zombie masses with nothing but a keyboard. Words appear on the screen and you have to type them in as quickly as possible in order to halt the living dead. As it's such a novelty title, there's no news yet as to whether it will be released in the UK.

BMX Bandits

Codies turn 18

Codemasters has celebrated its coming of age with a special release of the first game it ever published. BMX Simulator was released in 1986 for all the 8-bit computers and cost just £1.99.

Codies followed the game with a slew of other 'Simulator' titles including Grand Prix Simulator, Fruit Machine Simulator, SAS Combat Simulator and, our personal favourite, All Terrain Vehicle Simulator. And from such humble beginning grew the gaming colossus we know today.

Anyway, it's the Commodore 64 version of BMX Simulator that's available for free download from **www.codemasters.co.uk**, and it's wrapped up in a nice little emulator bundle so you can easily run it on your PC. However, you will need to sign up to Codemaster's newsletter before you can grab the game.

Important happenings in the wonderful retro world

This month // Sega Rally returns // Codies turn 18 // Mobile Alien vs Predator // Midway on the move // Steel Sky sequel revealed // DS launch details // Retro round-up...

Mobile Monsters

Sci-fi scrapping on the go

Going to see Alien vs Predator at the cinema? If you're after a little appetiser while you queue up for your popcorn, we have some good news for you. Veteran publisher Elite has snagged the rights to develop and distribute a mobile game based on the franchise, which should be available by the time you read this. It's a straight one-on-one fight to the death between the two alien races, so the old question of 'which one is harder' can finally be put to the test. Just bear in mind that in space, no one can hear you scream, but in the cinema foyer, chances are they probably will. For more information visit **www.elite-systems.co.uk**.

Midway Minis

THQ providing mobile back catalogue

THQ Wireless has just secured the rights to a bundle of Midway's old arcade classics, providing more retro flavour than a Wham bar to the growing mobile-phone gaming scene. Rather than reinventing or modernising the back catalogue, THQ is committed to keeping the same content, look and feel of the original arcade hits, and you can expect to see Defender, Spy Hunter, Joust, Robotron: 2084, Tapper, Marble Madness and even Mortal Kombat available soon. At least now you won't have to keep a stash of 10-pence pieces handy in case you fancy a quick game.

RETRO AUCTION WATCH

Richard Burton once again monitors the online auction sites

First up to the auctioneering plate this month is Zelda, synonymous with Nintendo consoles, but making a rare excursion on the Phillips CDi in Zelda's Adventure. Generally CDi games and units are not known for being the most collectable pieces of kit and rarely command high prices. In which case this title must have appealed to the Zelda collectors and completists, because when the hammer went down at the end of the auction the final price stood at an impressive £156.

Another old collector's favourite is Bubbler by Ultimate, which seems to be popping up more frequently on eBay nowadays. The relatively rare Amstrad CPC version stood up well to its Spectrum counterpart in terms of price and was sold for £72. Staying with Amstrad – the much overlooked GX4000 console

recently played a blinder on eBay. A boxed console complete with 15 boxed games stormed to a superb £221. I bet you won't be overlooking those at the car boot sales any more.

When it comes to reference materials for the retro-gaming enthusiast you can't go far wrong with a magazine from the Newsfield Publications stable. So when a cracking collection of Zzap.64 magazines recently popped up on eBay UK, complete with five original binders, you knew a good few quid was going to be changing hands. After bidding had subsided the final total rested at an impressive £128.

This month's ultra-rare piece of retro-gaming Holy Grailness, as so many eBay listings like to describe themselves nowadays, is Air Raid by Men-A-Vision for the Atari 2600. Men-A-Vision only ever produced one title in its time as a games maker and it was this strange-looking cartridge. Appearing to be the weird offspring of a one-night stand between a standard 2600 cartridge and a Raleigh Chopper gear stick, this bona fide super rarity deserves the ultra-rare tag as just a handful are known to exist. Apparently 20 were made and just five are accounted for. So what did this piece of gaming strangeness finally rake in? £1,850, that's how much.

One auction that never got going but certainly caught the bulging eyes of a few feverishly dribbling individuals was the deluxe sit-down arcade machine OutRun. It was listed for only a short time before being closed prematurely. Being nosy we contacted the lucky seller, Mark Wright of Thetford, and it appears that he was made an offer he couldn't refuse – a colossal £2,000. Maybe Mark invested it in that Air Raid cartridge? Seems like a fair swap...

Beyond the Revolution

Steel Sky sequel revealed

Revolution boss Charles Cecil has finally announced what we've wanted to reveal for some time now – that a sequel to Beneath a Steel Sky is in the works. Cecil stated: "We are currently working on several projects, some of which will exploit our original intellectual property in new and innovative ways. As we hinted last year, we're revisiting one of Revolution's most loved franchises – and I'm confident that Beyond The Steel Sky, with its interesting twist on the genre, will prove a substantial hit." It's not yet known when the sequel will appear, but the title certainly suggests that the game will take place outside the sprawling city featured in the first game.

But that's not all, because Cecil also revealed that Revolution was in advanced discussions concerning another one of its properties. It's guesswork at the moment, but he must surely be referring to a new Broken Sword game. All will be revealed soon.

RETRO ROUND-UP

If it's new for old, you'll find it here...

More homebrew

The virtual shop at **www.atariage.com** has announced three new games for you to spend your hard-earned cash on. They're Seawolf, Beef Drop and Reversi for the for the Atari 2600, Atari 5200 and Colecovision respectively.

Seawolf in particular comes from the production team Xype, whose work includes the superb remake of Thrust for the 2600. This game is based around Midway's classic arcade games Sea Wolf I & II, and brings naval convoy destroying action to Atari's ever-popular console of old. This particular version is also

available for PAL-compatible machines, priced at just US$23, and includes selectable skill levels and colour schemes, nicely drawn graphics and some brilliantly addictive and simplistic

gameplay. There is even music on the title screen and splash effects during play. Not at all bad for a 4Kb game!

Mario and the Mob

DS launch details revealed

Nintendo has officially confirmed details regarding the games available at the launch of its new dual-screen handheld.

Unsurprisingly, the lead game is the four-player version of Super Mario 64x4 which takes place in and around the castle area of the classic N64 game. Other familiar characters being readied for the launch include Samus Aran (starring in Metroid Prime: Hunters) and Ubisoft's limbless wonder Rayman. What's more, further Mario games in the shape of Mario Kart and a new Super Mario Bros. title will follow soon after.

The DS will launch in the US on 21st November and it's expected that the handheld will be available in the UK around the same time. Something for the Christmas list then...

All the fun of the fair

Jonathan Cauldwell's Fun Park (which is inspired by Themepark) is making its way to the Amstrad CPC. This great little title, which is already available from Cronosoft for the 16Kb Spectrum, is currently being ported and improved, as the CPC version is rumoured to contain more features thanks to the extra memory available.

This will be the first game Jonathan has ported to the CPC, and he reveals that it's something of a testing exercise: "There seems to be very little in the way of new software for the machine. I want to see how Fun Park is received by the Amstrad community and assess its strengths and weaknesses before embarking on any other projects." This game is expected to be released through Cronosoft when finished, but look out for an exclusive demo on a future Retro Gamer coverdisc.

Sam for sale

Colin Piggott, Editor of the Sam Coupé fanzine Sam Revival, is currently offering re-conditioned and upgraded machines for sale, starting at a low price of just £100. This is a bargain, considering how rare these binary beasts are.

Packs come complete with all the necessary accessories as well as a drive cleaner, 10 blank disks and a three-issue subscription to Revival, with other special deals available on request. Head over to **www.quazar.clara.net/sam** or email **quazar@clara.net** for more information.

CPCOxygen is back

The online publication CPCOxygen, which primarily supports Amstrad's 8-bit machines, has returned after a while out in the wilderness. Issue 12 features the usual round-up of classic game reviews, technical articles, and the latest news and opinions from the CPC scene.

Visit the website at **http://cpcoxygen.digi-alt.net** or contact the editor directly at **john@digi-alt.net** for further details.

The RETRO FORUM

Don't be a stranger now...>

Corrections

I just picked up issue six here in the US. For me, the attraction was the section on the Atari computers. However, there were some errors in the article that I want to relate.

First, the internal and covered expansion port was purely a test bus for in-house testing. It was never intended for actual expansion. A true expansion bus appeared first with the 600XL and 800XL models. Expansion was done with an available (memory) card slot in the 800.

Also available were 80-column and hard disk drive cards.

Atari decided the 400 was much more of a games machine, so there was only one port for cartridge games. The 800 was elevated to serious applications and business, so BASIC and an application cartridge could be inserted at the same time, though it could play the same games as the 400. Extra memory modules were only made as cards. Both systems could take up to 64Kb of standard memory.

None of the Atari 8-bit computers have RGB video. If they have a monitor jack, they have composite video, just like a video tape recorder. They also have a luminance output and most have a chroma output. RGB output did not show up until the ST line.

Sound has always come through the TV speaker, not the internal speaker of the 400/800. This speaker was mainly used for the 'bell' character and to alert users to play or record using the cassette. Assembly or BASIC can be used to make noise with the internal speaker. With the XL line, the internal speaker sound was routed to the TV speaker.

The GTIA was made for the 400/800/1200 and could be bought from Atari dealers. I bought mine on 24 July 1982 for US$22.50.

I hope this helps.

Rick Detlefsen, via email

RG: Well, we stand corrected. Many thanks for the information.

ZX upgrade

I have all issues of Retro Gamer from issue two and have just renewed my subscription to the magazine. I hope to get issue one some day – a PDF version would be great though.

I am writing to say that I'm very pleased that you cover Spectrum so well. I hope that this will continue in future issues. I have taken my Spectrum 48K from the attic and installed a ZXCF upgrade on it. A Spectrum with ZXCF would have been a dream machine in the 80s. You could perhaps write an article about different modern add-ons for 8-bit home computers.

Another suggestion: how about doing an Ultimate cover CD like you did with Gremlin?

One thing I don't like about the magazine is the commercial adverts. My children are five and eight years old and the content of some of the advertisements is too sexual. So I have not let them read

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Retro Gamer alone. They cannot understand English but they know many of the classic game characters, so they want to read the magazine.

Best regards,

Timo Reinikka, Finland, via email

RG: We're very interested in the modern DIY and commercial upgrades that are still produced for old 8- and 16-bit machines, and have mentioned them, albeit briefly, in past issues. We are considering a feature on upgrading and modding old machines, as well as one on restoration, although we haven't decided what form it will take yet.

We'd love to include Ultimate's old games on a future coverdisc, but current owner Rare guards its back catalogue with an iron fist, so it's unlikely it will ever happen. However, we're currently speaking to several other software houses regarding their back catalogues so you can look forward to future discs in the style of our Gremlin and Graftgold CDs.

Oh, and your comments about our adverts have been noted.

Stating the obvious

Issue eight was the first issue of Retro Gamer that I have been disappointed with. I was particularly looking forward to the countdown of top 100 retro games, to see the position of all the classic games I remember from the Eighties and also to discover some good retro games that I have never played before.

Imagine my disappointment, then, when there were so many positions in the countdown (from 100 to 51) filled with the likes of

Grand Theft Auto 3, Gran Turismo 3, and Resident Evil 2. If I had wanted to read about these games then I would have bought one of the other magazines on the news-stand. Good though they might be, many of the titles in the countdown simply aren't retro games.

The reason I was initially so pleased when I first saw your

* Star letter *

Our well-dressed friends at Joystick Junkies (**www.joystickjunkies.com**) produce official clothing based on loads of classic videogames, and the winner can select any T-shirt from the range.

Oversea's support

I just discovered your magazine yesterday at my local bookstore and I must say that I'm blown away by the sheer volume of information you've packed into 100+ pages. I don't know who publishes Retro Gamer here in the US, but I would love to get a subscription.

In 1988, when I was about 12-years-old, I got my first C64. Up until then, my home computers were all from the Apple line (starting with an Apple IIe). My C64 was a used machine, but it came with a tape deck. Here in the US, all the games came out on floppy disks and there were very few tapes to be had. Luckily I found a store that imported magazines from the UK – the majority of them had tapes stuck to the front that were full of amazing games. I had very little access to complete games on tapes but I somehow became a follower of the UK-gaming scene through these mags.

Finding your magazine has re-awakened my love for my old C64 (if only it still worked) and reminded me how much fun it was to follow things in the UK. The CD of games, the old advertisements that you reprint, and the all the interviews are amazing.

Here are a few questions for you. Firstly, here in the US, there's a big movement of retro gaming on the Sega Dreamcast. Just about any emulator you can find has been tweaked to run on a DC. Has this taken off over there as well, or is the emulation scene strictly for the PC?

Secondly, I remember playing a game on tape that was based on the movie Aliens. You played the part of Ripley and it looked almost like a first-person shooter. I have never known another person who played this game and any references I've found to Aliens games are never this one. Does anyone besides me remember this game or am I crazy?

Finally, in Japan there is a character named Kinniku Man who is known in the US through the toy line MUSCLE. There have been several games released in Japan under the Kinniku name, but only four that I know of have been released in the US. I know that in Italy the toys were called Exogini, but I have no idea if they made their way through the rest of Europe. My real reason for asking is because I'm wondering if any of the Japanese games made their way to your shores. As a fan of the series, I'd like to get my hands on the European versions of these games (if they exist) and I need to know where to start looking. So do you guys know anything about it?

Thanks again for all the fun! I hope I see you on my bookshelf next month!

Doug Turner, Illinois, via email

RG: Who'd have thought that having a creaky old tape deck would have lead you to discover UK gaming mags! In our experience, UK magazines have always been more opinionated than their US counterparts, which seem to be more controlled by advertising.

To answer your questions in turn – the Dreamcast has quite a following in Europe and there are a number of dedicated sites serving the scene. Indeed, we ran a feature on the DC scene in last month's magazine (which you have probably seen by now, taking into account the time it takes to ship the magazine overseas). The Aliens question is an easy one to answer. Two licensed Aliens games were released for 8-bit machines, one for the UK and one for the US (the latter was eventually released in the UK as Aliens US). The UK version was the first-person shooter you mention, while the US version was a collection of six mini-games. For more information see the feature on Alien and Predator licences in issue four.

As for your final question, we sadly have no idea. Perhaps one of our readers can help. Anyone? In the meantime, we hope you wear your stylish new Joystick Junkies T-shirt with pride!

magazine on the newsstand was because I thought that it was about computers from the Eighties, and would be an antidote to modern gaming, which, on the whole, I do not feel a part of.

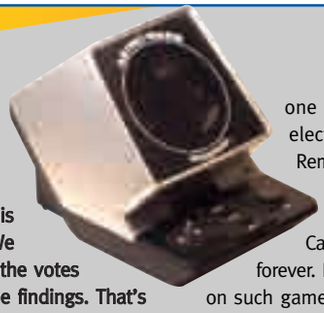
I was in two minds about subscribing when I first realised that RG existed (around issue three), but in the end I didn't as I thought that, at a later stage, you might move the magazine away from the likes of the Atari, ZX81, Spectrum, BBC Micro, C64, and the Oric-1, and on to modern, console-based gaming. It now seems that my worst fears have been confirmed, as you also feature an in-depth article on the Dreamcast.

Classics are games that we know have stood the test of time. I would rather read a 10-page article about a simple ZX81 classic such as 3D Monster Maze than a single sentence about Grand Theft Auto. Please put the retro back in to your magazine.

Derrick Dick, Norwich

RG: We think you might be getting a bit carried away. In the first part of the Top 100, there were seven games that were released in 1996 and after, three or which you mention, out of a total of 50. Basically, when we conducted the survey we asked people to simply vote for their favourite games, regardless of age. We didn't specify that they should be retro games, because that would require us to provide a cut-off date. And as we've discussed on these pages before, there are no hard and fast rules as to what is and isn't retro. We simply compiled the votes and published the findings. That's all there was to it.

Regarding your other comment, we are not moving towards modern consoles nor are we moving away from 'retro'. The fact that you have a single view on what is and isn't retro doesn't surprise us. We endeavour to maintain a balanced approach to the magazine's content, with a mixture of computer and console coverage. But obviously we can't please everyone...



Busy schedule

I have taken some time out of my busy schedule, which consists of reading Retro Gamer magazine from cover to cover many times, browsing your website and spending hours in your Forum, to write this email. (I'll have to get a job one day, but unfortunately, I don't seem to be able to fit it in my schedule).

I was a teenager in the Eighties and loved spending my Saturdays in Dixons typing stupid messages on all the machines they had on display, hitting the Enter/Return buttons and running out of the shop before the assistants noticed (we all did it, didn't we?). When I got home I would plug in my Speccy and play games. Between all this, when time was limited, I would plug in one of my many electronic games. Remember Astro Wars, Scramble, FireFox, Munchman, and Caveman? I could go on forever. How about a feature on such games? Although these aren't strictly consoles, they are an important part of retro gaming as well as many people's collections.

Vince Bennett, via email

RG: Ah yes, the old Dixons trick. That was especially fun when they proudly displayed the Amiga range with a copy of Workbench booted. And we're sure many of you got hours of entertainment from using the speech synthesis program, in which you had to spell things phonetically, to insult the shop employees. Although we know some of the words wouldn't necessarily need phonetics. As for a feature on LCD games, there might very well be something of interest to you in next month's issue.

Applications

Your coverage of retro games and hardware is just great, but I'd like to see a little more content about applications please.

Like many of your readers I started out using a Commodore 64, but I used the computer for much more than playing games – like printing (Print Shop), composing music (Music Shop), programming (Simon's Basic), databases (Superbase 64), word processing (Star Fleet II), art (Koala Painter), and many other useful things that my Commodore 64 was capable of. Perhaps your magazine could include a little section about these fantastic applications, what happened to the authors, what else was written and where to find them...

Luis Zegarra, Sydney, Australia, via email

RG: Although we haven't touched on the packages you mention, we did briefly cover the operating system GEOS for the C64 and C128 back in issue two, which handles everything that you have mentioned. GEOS comes complete with a word processor, printer drivers, a paint package and a spell checker, and is currently available as a free download from www.cmdrkey.com.

Cheats always prosper

I placed the following advert in the 10 November 1983 issue of Popular Computing Weekly: "Manic Miner. Use the keyboard to select any screen. Send £1.50 to..." I think that this was the first ever mention of 'cheats' for a Spectrum game. I disassembled JSW the first weekend that it went on sale and advertised cheats for that as well. I then also produced a BASIC/machine code 'Chuckie Egg Screen Designer'. Needless to say, I never gave up the day job.

David, via email

PS – Do we really need a DVD box for the covermounted CD?

RG: An interesting tale. Can you remember how much money you made? Regarding the DVD cases, we chose this as it allowed us to be more creative with the space rather than just having a jewelled CD case.

Debt collector

I started to re-read the letters page in issue three and saw a letter from a guy who said that if you could get an interview with Matthew Smith by issue eight then he'd donate £50 to a charity of your choice. You got the interview in issue seven so he owes your charity £50. Tell him to cough up.

Paul Milar, via email

Games that weren't

If at all possible could you please do a feature on games that were never released? I remember seeing a load of games in magazines that looked good but never saw the light of day, such as Hell Raiser on the NES, New Breed on the Megadrive and Star Fox 2 for the SNES. Also, I know it's a bit modern, but a page on why Sonic Xtreme was never finished would be good, as what I've heard so far is fascinating.

Anonymous, via email

RG: We've been talking to Frank Gasking, webmaster of the Games That Weren't 64 website, about this for some time and we'll defiantly do something on unreleased C64 games in the near future. If it proves popular, we see no reason why it can't be expanded to include other platforms. In the meantime, we whole-heartedly recommend you take a look at Frank's site at http://homepage.ntlworld.com/frank.gasking.

RG: Thanks for pointing that out as we had forgotten. Thing is, it wasn't exactly an interview, more a public Q&A session, so we don't think that counts. Still, if Barry Harding wants to donate the cash then we're sure Cancer Research would be extremely grateful.

Adventure writer

I enjoyed Retro Gamer seven. As usual the articles provided a heady mix of nostalgia and current topics. I was particularly interested to read about Keith Campbell, whose column I used to read regularly all those years ago. I wondered at the time why his column suddenly stopped with no explanation or farewell.

As the article suggested I contacted him to thank him for all of the help he gave us. As you now have contact with such an important figure in the adventure game scene of the time, I hope you will seriously consider giving Keith a chance to contribute to Retro Gamer in the future.

Peter, via email

RG: Keith emailed us recently and said how much he has enjoyed all the feedback to the Desert Island Disks piece. We've spoken to him about the possibility of a semi-regular column, so this may indeed happen in the future.

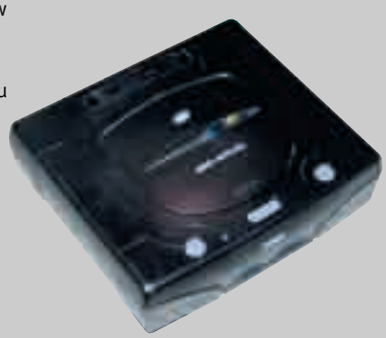
Priceless

I'm writing from Australia and I've just bought issues four and five of the magazine. I'm 23 and never had the opportunity to own a Spectrum or some of the other earlier systems covered in the magazine, but your features have uncovered a lot of awesome games I've missed. For instance, I had never heard of Jet Set Willy.

The first game I ever remember playing was Bruce Lee on my old XT PC, and some of Sierra's titles like Police Quest, Space Quest, Zeliard and, of course, Leisure Suit Larry. Then I got a Megadrive. That thing practically raised me and was the first system I had that was truly mine. I bought all the add-ons – a Mega CD, 32X, Action Replay – and then bought a SNES. Some of my fondest memories are of reading Mean Machines and C&VG, two publications you may have heard of.

Lately I've been getting hold of some of the rarer CD games, including Shining Force, Heart of the Alien and others, but these are nothing compared to the gems I've found for the Japanese Saturn. As a big Shining Force fan, I have all three versions and the collector's Premium Disc, Grandia and Grandia Digital Museum, X-Men vs Street Fighter, Marvel vs Street Fighter, Metal Slug 1 and 2, Thunderforce V, Castlevania: Symphony of the Night and, my pride and joy, Radiant Silvergun. Together, these games would probably fetch well over US$2,500, not that I want to sell.

The Saturn was an absolute monster in Japan and it's such a shame to see that out of all those games I mentioned, only one came out in the UK and none came out in Australia. What are the chances of doing a feature on 'The Lost



Treasures of the Far East', because this machine truly deserved more attention than it received. I think a few of your older readers who have only just returned to the scene with the release of Retro Gamer would find it interesting, in the same way that I have learnt about the dawn of home computing during the 80s.

Thanks to the PlayStation, the jump from 2D to 3D was made far too early for the technology – Sega tried its hardest to maintain the quality (a responsibility acquired with the success of the Megadrive) but was eventually overwhelmed by the crap from Sony. Nintendo, having avoided the pitfalls of over-capitalising its hardware, was able to survive and is still producing great stuff today. Not that there are no good games for the PlayStation, but I would hardly call it a retro machine. Kids of today expect great graphics and barely notice the gameplay, and most games now reflect that.

I no longer bother with consoles, having returned to the PC, and I couldn't be happier. Thanks for your hard work and for showing me that other people feel the same way about monochrome sprites wobbling across the screen and awesome PC speaker sound. In between replaying my favourites via emulation or on an old 486 DX2 I still own, I like to indulge in the FPS phenomena currently sweeping the gaming world. I suppose in 20 years my Saturn collection will be priceless, and we'll all remember the day Doom 3 came out and the 'Great Half Life 2 Source Code Leak' will be an absolute legend.

Bye for now,

Dave Soletti, via email

RG: Thanks for your thoughts Dave. Besides serving up a healthy dose of nostalgia, we do hope to inform and educate at the same time (perhaps we should seek government funding!). The fact that you've discovered classics like Jet Set Willy makes us feel all warm inside. We plan to cover Japanese games from time to time, and hopefully you enjoyed the Treasure feature in issue eight. Out of interest, regular Retro Gamer contributor Aaron Birch is a massive Shining Force fan and he'd probably pay us to write about the series! Maybe one for the future.

Total rubbish

I like the magazine, but I am glad that your obsession with Manic Miner and Jet Set Willy has ended as I think that these games are total rubbish, and also feel that there are far better games that were available even at the time. The Ultimate games for the Speccy were superior to Matthew Smith's efforts by a mile, so why not focus on them a bit more?

James Bray, via email

RG: Manic Miner and Jet Set Willy total rubbish?! Are you mad, man?! Given their rankings in the Top 100, it's obvious that many of our readers disagree and would probably like to see that large foot fall on your head. As for Ultimate coverage, we're looking into that right now.

More retro body art

Having just picked up issue seven of Retro Gamer I noticed you were looking for retro tattoos, so I've sent you a photo of the Commodore logo on my right leg.

I've been hooked on the C64 since I was a kid back in the 80s, and my living room holds no less than three C64s, a C128, two Amigas and a Spectravideo, so you can imagine my relief when I found Retro Gamer on the shelves here in Oslo, Norway, and realised I was not alone in my retro worship. Keep up the good work with your magazine and I hope you will do a Shadow of the Beast feature soon as I personally think these games were the best ever.

Tor R Stavenes, via email

RG: Shadow of the Beast was a great game and the C64 received an impressive port. As it happens, we're planning a feature on C64 cartridges, and as Shadow of the Beast was the closest thing to a launch title for the ill-fated C64GS, we expect the game to feature in there somewhere. Oh, and nice tattoo by the way.

RETRO REVIEWS

From old games on new platforms to new games on old platforms. As long as it's retro, you'll find it in our regular reviews section

Do you disagree with our Hall of Fame or Hall of Shame reviews? Or can you think of any other really great or damned awful games that we should take a look at? Email reviews@retro gamer.net with your suggestions and we'll take it from there...

OutRun 2

Developer:	Sega
Price:	£39.99
Format:	Xbox

Playing the original OutRun is a rite of passage when it comes to proving your retro gaming stripes, and the iconic racer is one of the all time arcade greats. After all these years, Sega has decided to update the game with a fully blown sequel. OutRun 2 arrived in the arcades earlier this year and now it's bound for the Xbox.

Anyone who's lucky enough to have played the arcade version will know that Sega has done itself proud with the sequel, banishing memories of Dreamcast Daytona and other less-than-successful updates. Although it's dripping with visual gloss, the game is still the OutRun we know and love. The multi-route map is there (complete with the same zones), familiar tunes play along in the background, and the trophy blonde still accompanies you for the ride (and she still gets peeved when you screw up).

The original arcade mode is just the same as you remember it – race from start to finish, choosing your route as you go – and this is joined by all sorts of new game modes. The harsh-sounding Heart Attack Mode is a race through the stages while showing off your driving skills to a rather feisty young slip of a girl who tells you what moves to pull off (powerslides, hitting cones, etc), and the Xbox-only Mission Mode is a collection of over 100 challenges. Each of these contains a specific goal such as staying above a minimum speed limit, avoiding traffic and so on. Completing these earns rewards such as new cars and new tracks. You can also unlock the original OutRun (although it's the slightly updated Shenmue 2 version).

OutRun 2 is Sega at its very best. It's the perfect updated to perhaps the perfect arcade game. Retro Gamer readers can finally justify the purchase of an Xbox.

Aaron Birch

Graphics	93%
Looks stunning, as you would expect. Some of the stages are simply breathtaking.	
Sound	85%
Updated mixes of the original tunes plus lots of new music.	
Playability	93%
The powerslide system is a joy to pull off. New modes offer alternatives to straightforward races.	
Addictiveness	89%
As with the original, you'll want to keep trying different routes to experience all the stages.	
Overall	91%
A classy sequel that fans of the original will love. Sega proves once again why it's the king of arcade racers.	

Midway Arcade Treasures 2

Developer:	Midway
Price:	£14.99
Format:	PS2/Xbox

Following the success of its first Arcade Treasure collection, it's hardly surprising that Midway has chosen to dig out another 20 gems from its archives. After all, the company has a rich gaming heritage with plenty of classic titles in its back catalogue. Sadly though, we fear Midway may have shot its bolt last time around by including the majority of its best titles on the first collection. There really is nothing here to match the delights of Defender, Robotron 2084, Super Sprint, Spy Hunter, Joust, Gauntlet, Paperboy or Smash TV.

So what have we got? Well, besides a couple of golden oldies (Wizard of War and Timber), and sequels to titles on the first collection (Championship Sprint, Gauntlet 2 and the dreadful Spy Hunter 2), most of the titles originate from the early 90s. The highlight for many will be Mortal Kombat 2 & 3, although it must be said that the once state-of-the-art fighter hasn't aged too well. It's still pleasingly bloodthirsty and packed with humour, but the graphics and gameplay have succumbed to the savages of time. It's the same sad story with Pit Fighter and Primal Rage. Much better is 1988's Narc, which is surely the most violent, non-PC game of the decade. It's still a lot of fun to play though, especially when taking on drug-addled scum with a friend.

Besides the hit-and-miss nature of the games, the biggest disappointment is the standard of the extras. Each game is accompanied by brief linear notes

and the original arcade flyer, but it's the video footage that's particularly poor. The interviews with developers appear to have been recorded with a creaky old camcorder and the sound is completely distorted. In one particularly bad example, Ed Logg is interviewed for 20 minutes about Gauntlet 2 and you can barely decipher a word the poor fellow says.

Martyn Carroll

Graphics	n/a
	The games in the collection are all arcade perfect.
Sound	n/a
	As above. The sound on the video interviews is awful mind.
Playability	70%
	The games are mostly average with three or four standout titles.
Addictiveness	82%
	With 20 games there's always going to be something to come back for.
Overall	72%
	Stands in the shadow of the original Arcade Treasures. But for just £15 you can't complain.

Metal Slug 3

Developer:	SNK
Price:	£19.99
Format:	PS2/Xbox

Originally appearing in arcades in 2000, Metal Slug 3 may not exactly be old, but this frenzied 2D shooter is retro to the core. As you'd expect, gameplay is basic – run, jump, shoot, repeat. To keep things interesting there are 10 different vehicles to razz around in, which range from the very cool (helicopters and jet planes) to the plain silly (elephants and camels).

It really is just you against a world of pain. Thankfully there are loads of outrageous weapons which you can pick up and use to raze the enemy forces. Particularly impressive are the deadly accurate Enemy Chase missiles, while the always reliable Heavy Machine Gun is great when you need to clear the screen.

A second player can join in at any time by pressing the Start button, and you'll probably be grateful for their help since the game is harder than titanium nails in places. But not so hard that you'll be able to resist coming back for one more go – the hallmark of a true arcade classic. Yes, it may look a bit dated, and yes, the gameplay is by no means complex, but it's great to see a game on a modern console that doesn't involve stealth, strategy or hiding in the Vietnamese jungle for a change.

Ignition should be thanked for bringing SNK's classy back catalogue to the PlayStation 2 and Xbox. After all, it's not like you can pop down the local arcade and play the games there is it? For just £20 there's absolutely no reason not to add this to your collection, and it'll make part of an explosive set when the fourth and fifth games in the series are released next year.

Ellie Gibson

Graphics	75%
	Nothing fancy, but the sprites are well drawn and clearly defined. Some of the bosses take up half the screen.
Sound	70%
	The usual non-descript soundtrack is thankfully drowned out by a multitude of explosions.
Playability	86%
	Running around shooting stuff has always been fun. This is no exception.
Addictiveness	77%
	Despite the difficulty level you'll want to persevere, if only to witness what the next level has to offer.
Overall	82%
	A great addition to the Metal Slug series and a fine 2D shooter in its own right.

Hunter

HALL OF FAME

Programmer:	Paul Holmes
Year of release:	1991
Format:	Amiga/ST

Activision's Hunter is one of the earliest and greatest examples of a free-roaming 3D game. It not only gave us a fully realised 3D world, but also provided us with the chance to jump into practically any vehicle we saw. You could be walking through the countryside, avoiding enemy patrols when a helicopter caught your eye. Seconds later you'd be zipping about the heavens, causing havoc with your newfound vehicle. Cars, boats, tanks, bikes and even surfboards could be commandeered to aid you in your mission, and each vehicle had its own distinct abilities and strengths.

The gameplay of Hunter was its biggest asset however, and all the vehicles and smooth 3D visuals only served to support the wide-open, free-roaming mission structure. In your various assignments against an enemy military regime, you had to carefully move around the different archipelagos, collecting information and infiltrating enemy lines. How you achieved your mission was up to you, and the route you took depended solely on your own decisions. This freedom did, admittedly, become something of a hindrance at times, as the urge to forget the mission and go joyriding around the island often took over the desire to complete your task. But even messing around in the game world and attempting to create all sorts of stunts (jumping out of a chopper and landing on a boat for example) was as enjoyable as the actual game, so what did it matter?

Hunter was a real breath of fresh air when it arrived. Sure, Midwinter also offered the same free-roaming and vehicle-based play, but Hunter was the more accessible of the two, providing a much more simplified and enjoyable experience.

Aaron Birch

Playability 90%
The massive open-ended missions and huge worlds didn't restrict you in any way, and you could do what you wanted, when you wanted.

Graphics 70%
Very simple and low poly by today's standards. In fact, it didn't look that spectacular when it was first released.

Addictiveness 94%
Whether you could complete the missions or not, you still kept coming back just to mess around in the vehicles.

Sound 50%
Probably the weakest area of the game, with only minimal in-game sound. But it did the job.

Overall 92%
A classic that was clearly ahead of its time. Rarely have gamers been afforded such freedom.

Terminator 2: The Arcade Game

HALL OF SHAME

Developer:	Ocean
Year of release:	1991
Machine:	Amiga/ST

Having landed the rights to one of the most pivotal action movies of all time, Ocean set about creating a typical multi-part licence. And it was completely terrible in every respect. We can only imagine that the creative meeting to discuss the project quickly migrated from the boardroom to the boozer, because Ocean lazily decided to try and repeat the success it had with similar movie licences like Robocop and Total Recall.

We ended up with a mixture of amazingly poor one-on-one combat sections, tedious and ropey chase scenes, and yes, slide puzzles – slide puzzles against the clock no less! It might just be us and our funny ways, but when thinking of recreating an action-packed Arnie flick, a slide puzzle isn't the first gaming element that springs to mind. But we've always been mad like that.

Stupid sub-games aside though, the rest of the game was just as poor. Graphically it was OK for the time, but the gameplay was dull, repetitive, simple and clunky. The one-on-one fights had hardly any moves and it was basically a case of how fast you could tap the fire button. The 'chase' scenes were more like public-domain demos than Hollywood action sequences, and success was down to nothing more than remembering the route. Perhaps the inclusion of a platforming section would have saved the game from the scrapheap – perhaps. We'll never know. The game's biggest crime though was that you could complete it in under six minutes. By our calculations, that means you could complete the game around 23 times during the film's original running time – although attempting such a feat could leave you irreparably damaged.

Aaron Birch

Addictiveness 9%
Unlike Arnold, you won't be back.

Graphics 61%
Animation wasn't up to much, but the visuals weren't that bad, which is something at least.

Overall 14%
How Ocean could take one of the most promising gaming licences ever and turn out such filth is an achievement in itself.

Sound 45%
Nothing to write home about – functional, but boring.

Playability 19%
Rubbish driving bits and one of the most sluggish and ridiculous fighting engines ever. Oh, and did we mention the slide puzzles?

eMag

AMIGA

:-Hola Amiga!

With its innovative hardware and outstanding software, the Amiga wowed the computing world on its release in 1985, and went on to earn pride of place in millions of European living rooms as the most powerful gaming platform of its day. Dave Cusick traces the origins and development of this massively popular home computer family

The birth of a legend

Largely, the Amiga owes its existence to Jay Miner. He worked for Atari in the late 1970s, developing the 2600 (VCS) console and the 400 and 800 computers. He wanted to create a new gaming system based on the Motorola 68000 processor, but Atari was busy milking the cash cows it already owned, so it wasn't interested in Miner's idea. Fed up with the company's lack of vision, Miner left Atari in 1980 and went to work for a pacemaker manufacturer.

In 1982, Miner had a telephone conversation with a former Atari workmate, Larry Kaplan. Kaplan had quit his job at Atari to become one of the founding members of Activision, but wanted to start a new videogame company and was looking for funding. Miner suggested Kaplan contact three dentist friends of his, who were looking to invest US$7m in the right idea. Kaplan set up a company called Hi-Toro, based in Santa Clara. Miner began moonlighting for the company.

Hi-Toro hired Dave Morse, who'd previously been Vice President of Marketing at Tonka Toys, as Chief Executive Officer. Before long though, Kaplan again became frustrated and resigned from the post of Vice President. Miner promptly quit his job at the pacemaker company and assumed the role of VP. He immediately injected new life into Hi-Toro's operations.

Before long, Hi-Toro changed its name, as it feared it might be confused with Toro, a Japanese lawnmower manufacturer. The new name it chose was Amiga, the Spanish for 'girlfriend'. It was felt that this was a warm and friendly name, which had the added benefit of coming before Apple and Atari in the alphabet.

Jay Miner was the father of the Amiga, having conceived the machine whilst working for Atari in the late 1970s

The Joyboard was one of several peripherals launched by Amiga to provide cover whilst it developed Lorraine

Lorraine

In the early days, to provide cover whilst it developed its killer product, Amiga produced peripherals for use with existing game systems. Amongst the most famous were the PowerStick, a joystick for the Atari 2600 and ColecoVision gaming systems, and the less successful Joyboard, a control device that you stood on and rocked.

Behind the scenes though, the focus was on producing a videogame system. That's right – a games console, not a fully-fledged computer. Miner always wanted to produce a computer, but Amiga's backers wanted a game machine. As Miner later explained: "Atari had turned me down and here was my big chance, as long as it could be sold in a stripped down, low-cost version for videogames. Dave Morse and the financial backers were happy. As long as it was unlimited in its expandability as a high-level home computer, I was happy." Miner quietly included a keyboard interface and the facility to expand the system's memory.

The machine was codenamed Lorraine (after Morse's wife). Development of Lorraine went on throughout 1983, during which time its importance to the company grew. This was the year that the bottom completely fell out of the US videogames market, and, as a result, Amiga's peripherals division began losing money rapidly. It was around this time that Amiga's backers decided Lorraine could do with being a fully-fledged home computer, rather than just a videogame console. Just as well, then, that Miner had decided to include a keyboard interface and some expansion options.

In an attempt to ensure that Lorraine was finished as quickly as possible, Amiga took on new staff. They included software engineers Dale Luck and RJ Mical, who worked on the machine's operating system.

Courting Atari

At the start of 1984, Amiga was staring financial meltdown in the face, so the decision was taken to show the still incomplete Lorraine at the Consumer Electronics Show in Chicago. Luck and Mical wrote a little animation demo featuring a bouncing ball, which was later adopted as something of a symbol for the Amiga. Those who saw the system were impressed, says Mical: "People at CES didn't believe the Amiga could be that powerful, so during the show they kept looking under the skirt of the table to see where the real computer was!"

Amiga courted the likes of Apple, Atari, Sony and Silicon Graphics as potential buyers, but only Atari made a serious offer. It wasn't interested in the Lorraine itself, but wanted to use bits of the technology within its own projects. Atari originally offered around US$3 per share, and loaned Amiga US$500,000 to keep it afloat while the details of the deal were worked out. Knowing that it had Amiga over a barrel though, Atari then began reducing its offer, until eventually it dropped to just US$0.98 per share.

The guys at Amiga were not impressed, and became even more worried when an internal Atari memo announced that the company's 8-bit computer projects were on hold – they feared the Amiga project would go the same way if the deal went through. Amiga started looking for another buyer and at the last minute, it found one. On 15 August 1984, Commodore nipped in and bought Amiga from right under Atari's nose. Commodore paid US$4.24 per share, and repaid the US$500,000 loan to Atari.

When Lorraine was showcased at the CES in January 1984, its custom chips were still unfinished so large circuit breadboards had to be used instead

Jack Tramiel (who was the boss of Atari by 1984) was furious that Commodore had poached Amiga from under Atari's nose

The Atari aftermath

Atari wasn't happy that it lost out. It promptly sued for breach of contract, claiming Amiga shouldn't have been courting other potential buyers after having agreed to sell to Atari.

By this point, Atari was under the control of the legendary Jack Tramiel. Tramiel had founded Commodore back in 1955, and by the early 1980s the company was dominating the home computer market with its Commodore 64 machine. But in January 1984, after a fall out with a major shareholder called Irving Gould, Tramiel resigned from Commodore. He didn't stay out of the home computer market for long – just six months later he bought the loss-making computing division of Atari. Atari had been owned by Warner since the mid 1970s, but following the collapse of the US videogame market in 1983, the entertainment giant wanted out. Warner retained Atari's coin-op division, renaming it Atari Games.

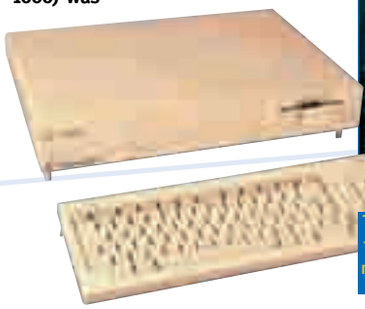
It has often been suggested that Tramiel bought Atari purely because he saw a chance to get back at Commodore, but there was almost certainly more to it than that. Tramiel clearly felt that with his marketing expertise, he could transform Atari into a profitable business again. What's more, he wanted to set his sons Sam, Leonard and Gary up for life (he'd previously tried to employ them in key positions at Commodore, but had met opposition from Gould and others).

Tramiel was furious that Amiga had, as he saw it, renegaded on its promise to sell to Atari. He poured resources into producing a 16-bit machine that would compete with Lorraine, called the ST (which either stood for 'Sixteen Thirty-Two', or 'Sam Tramiel' depending on who you believe). Based on the Motorola 68000 processor, the ST had quite a few similarities with the Lorraine. It hit the market before the Amiga was finished and, in classic Tramiel fashion, it was positioned at a remarkably low price point, which ensured it sold very well.

The Amiga 1000

Commodore invested US$27m in the Amiga. As Miner later told an interviewer: "Commodore made many improvements in the things that we wanted, but we did not have the resources to accomplish. [Lorraine] originally only had 320 colours across the screen, even in the 640 mode. They also improved the colour by moving the NTSC converter off the chip."

The Commodore Amiga (which would later be renamed the Amiga 1000) was



The Amiga 1000 was an incredibly advanced machine for its day

>Custom chips

The Amiga 1000 was extremely innovative. It wasn't the first machine to be based on the Motorola 68000 processor, but it was the first to make extensive use of co-processors and custom chips to relieve the load on the CPU.

The custom chips were given names, because the Amiga's developers didn't want rival companies to know what they were up to – they knew that if they talked about Lorraine having problems with Agnus, nobody would think it had anything to do with computer design. Lorraine's custom chips were as follows.

Daphne: the original graphics co-processor. It was later renamed Denise.

Agnus: the address generator, which looked after pointer register logic and DMA (Direct Memory Access) control, as well as sprite operations. Apparently, the name is a contraction of 'Address GeNerator UniteS'.

Portia: the ports and audio controller, later renamed Paula.

Gary: handled lots of the odds and sods of system operation.

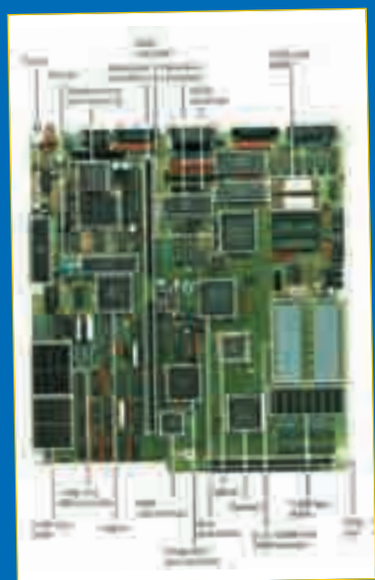
Integrated into Agnus were a couple of display co-processors, called **Copper** and **Blitter**, which were designed to take the strain of graphics generation off the processor. At the time, the use of co-processors in gaming systems and home computers was extremely unusual.

Copper could handle eight sprites (independent movable objects that were 16 pixels wide and any height, and could use three colours) anywhere on the screen. By linking two sprites together you could effectively create a 15-colour sprite.

Blitter chips were common in flight simulators of the time, but unheard of in home computers. Blitters were capable of taking data from two places in memory, moving it around and performing logic operations on it, and depositing the result into another place in memory. They were fantastically useful in all sorts of graphical operations.

The Amiga could run in screen resolutions ranging from 320x200 pixels to 640x400 pixels. Up to 32 colours could be used simultaneously on screen, which was a lot more than 8-bit machines could manage, and twice as many as could be displayed on the Atari ST. A particularly innovative feature was the HAM (Hold And Modify) graphics mode, which used the trick of changing colour registers to make it possible to display up to 4,096 colours on screen simultaneously, although there was a big speed hit associated with doing this.

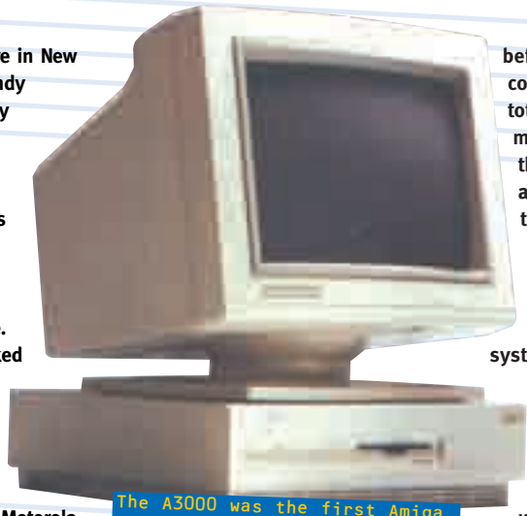
Incidentally, you'll come across two types of memory in discussions about Amiga RAM – chip RAM and fast RAM. Chip memory is accessible by the processor and the custom chips. Fast RAM is only accessible by the processor, not by the custom chips, so a program running solely in fast memory will end up running faster than a program running in chip memory.



launched to much fanfare in New York on 23 July 1985. Andy Warhol and Debbie Harry appeared at the launch, demonstrating the graphical capabilities of the new system, such as the ability to display 4,096 colours on screen simultaneously in HAM (Hold And Modify) mode.

The Amiga 1000 looked like a desktop PC – it had a main unit designed to sit under the monitor and a separate keyboard and mouse. Powered by the Motorola 68000 processor running at just over 7MHz (the PAL and NTSC versions actually ran at slightly different clock speeds), it boasted 256Kb chip RAM (see Custom chips for more on this and fast RAM) on board, which could be expanded to 512Kb chip RAM. (Miner wanted to include 512Kb all along, but Commodore thought this was too expensive). You could also add up to 32Mb fast RAM on a processor upgrade card.

When it was launched, the system cost US$1,300 (excluding the monitor) – three or four times the price of a C64 and almost twice as much as an Atari ST. It sold reasonably well to creative types, but its price meant it was merely and object of desire for many.



The A3000 was the first Amiga to use Workbench 2.0

The family grows

Launched in 1987, the Amiga 2000 was another desktop-style machine. It was designed to be more expandable than the Amiga 1000 – it had an SCSI hard drive, for example. Most A2000 machines had 1Mb chip RAM on board, although some of the earliest had 512Kb chip RAM and 512Kb fast RAM. It could be upgraded to 2Mb chip RAM, with up to 8Mb on Zorro II expansion cards and up to 128Mb fast RAM on processor cards.

In the A2000, Agnus (see Custom chips for more on thechips' names and roles) was replaced with Fat Agnus, an improved custom chip that rolled in a few extra features that had originally been handled by other parts of the A1000 board. The A2000 also featured a new custom chip called Buster, which looked after expansion ports.

The Amiga 500, which was launched in 1987, was the machine that really catapulted the Amiga to mainstream success. Essentially a cut-down A2000, it integrated the keyboard into the computer design. It came with 512Kb chip RAM, which could be upgraded with the addition of another 512Kb plus 8Mb of fast RAM.

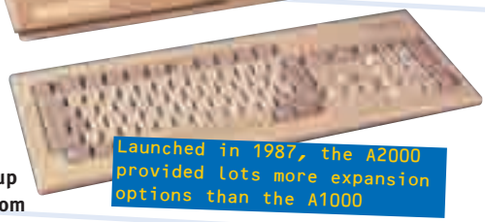
Although it was slightly more expensive than its rival, the Atari 520ST, the A500 had an edge in terms of graphics and its onboard audio capabilities put those of the ST to shame. Games manufacturers began taking full advantage of the machine's capabilities and before long, it was the home computer everyone wanted. In total, somewhere around a million A500s were sold in the UK alone, with perhaps another million sold around the rest of the world.

The A500 was the best-selling member of the family and the home computer everyone wanted in the late 1980s

Commodore milked the success of the A500 for some time before it released a new Amiga system. In 1990, it launched the Amiga 3000, another desktop-style machine. This was the first 32-bit Amiga, and it employed the Motorola 68030 processor and ran at 16MHz (later increased to 25MHz). It included the ECS (Enhanced Chip Set), which boasted souped-up versions of several custom chips, including Fat Agnus, Fat Gary, Fat Buster and Super Denise. A display-enhancing chip called Amber was added, as was a RAM controller called Ramsey. The A3000 also introduced version 2.0 of the Workbench user interface.

Commodore used some of the A3000's new technology, such as ECS and Workbench 2.0, in the Amiga 500+, a revamped version of the hugely successful mainstream machine. Arriving in 1991, the A500+ included 1Mb of chip RAM (upgradable to 2Mb chip RAM plus 8Mb fast RAM) and had some extra screen modes, called Productivity and Super72.

During 1992, Commodore replaced the A500+ with the Amiga 600. This was smaller than its predecessor, partly due to its smaller internal circuitry, but largely due to the lack of a numeric keypad (flight sim buffs were not impressed, as this meant they couldn't change views!). It had 1Mb chip RAM on board and could be expanded to 2Mb chip RAM plus 32Mb fast RAM. There was also an internal IDE socket and room for a 2.5in hard disk drive, but on the whole this was not a machine designed with upgradeability in mind.

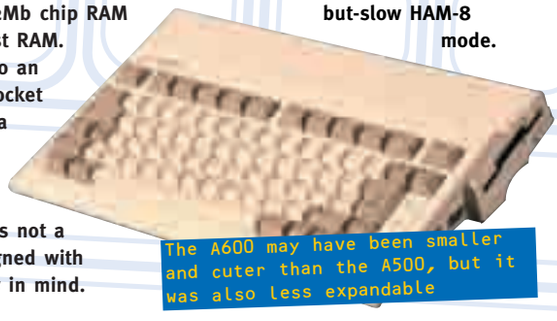


Launched in 1987, the A2000 provided lots more expansion options than the A1000

AGA arrives

On 11 September 1992, Commodore launched the Amiga 4000. This was the first major upgrade of Amiga hardware in seven years, but it was backwardly compatible with the earlier machines and so could run the vast majority of existing Amiga software. It was built around the Motorola 68040 processor running at 25MHz (although 68030 variants were later introduced).

The A4000 used the ECS, but also included the all-new AGA (Advanced Graphics Architecture). AGA employed new custom chips called Alice and Lisa, which replaced Agnus and Denise respectively. Amongst other things, AGA made it possible to use up to 256 colours on screen at once, from a palette of 16 million, at a resolution of up to 800x600 pixels. You could even display a staggering 256,000 colours simultaneously, using the fancy-but-slow HAM-8 mode.



The A600 may have been smaller and cuter than the A500, but it was also less expandable

Launched late in 1992, the A4000 was the first of the AGA Amigas

The A4000 also introduced Workbench 3.0, which boasted loads of innovative features. The most notable of these included: the capability to read floppy disks formatted on the PC or ST; a standard software installer; and the datatypes system, which essentially enabled you to bolt support for new file formats onto existing software without having to wait for a new program release.

The A4000 was an expensive desktop-style system, so for the mainstream market, Commodore introduced the Amiga 1200 in December 1992. Based on the same AGA chipset as the A4000, this was a 32-bit machine built around the Motorola 68020 processor, running at 14.28MHz. It had 2Mb chip RAM on board, and you could add up to 8Mb fast RAM on a PCMCIA card, or up to 256Mb fast RAM on a processor upgrade card. As for custom chips, the A1200 featured Alice and Lisa but also had two new chips – Gayle replaced Gary, and functioned as a combined system address decoder and IDE controller (since the A1200 had an internal IDE connector for a 2.5in hard disk drive), whilst Budgie handled a lot of the memory-related processes.

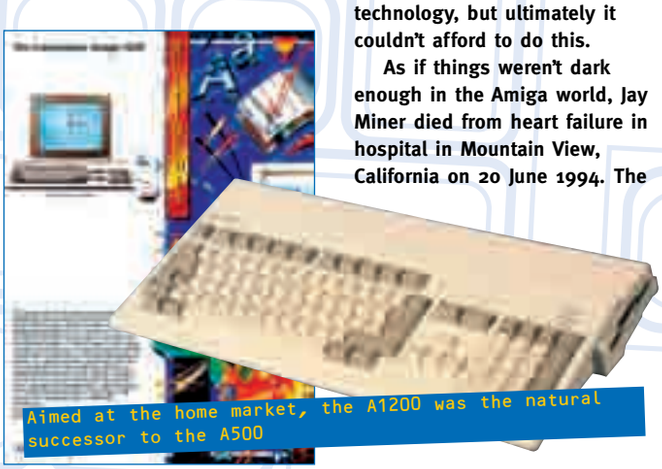
The A1200 sold more than 100,000 units in the first four months of its life, and went on to become the second most successful Amiga, after the A500. It was the final nail in the coffin for the Atari ST.

In total, it's estimated that between 4 and 5 million Amiga machines were sold worldwide, and the vast majority of those were in Europe. The UK and Germany were the two biggest markets, with roughly 1.5 million machines sold in each. Italy was next in line with around 700,000 units sold – slightly more than were bought in the USA and Canada combined.

End of the road

On April 29th 1994, Commodore International filed for liquidation. Commodore UK, which was still alive and healthy under the capable guidance of David Pleasance, proposed that it could buy out the Amiga technology, but ultimately it couldn't afford to do this.

As if things weren't dark enough in the Amiga world, Jay Miner died from heart failure in hospital in Mountain View, California on 20 June 1994. The



Aimed at the home market, the A1200 was the natural successor to the A500

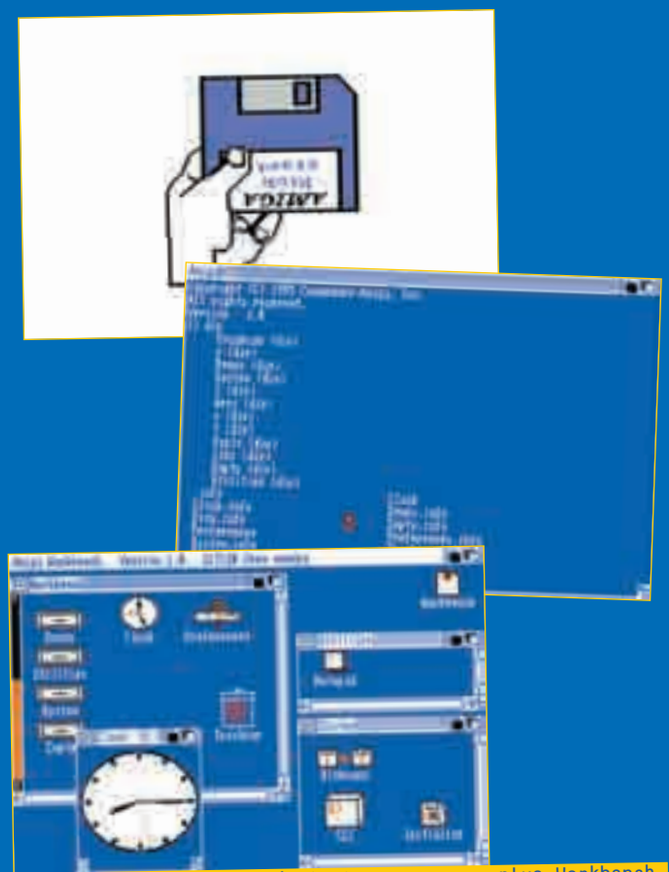
>Amiga OS

The Amiga 1000 was capable of true multitasking (doing two things at once), a feature that wouldn't become commonplace on PC systems until more than a decade later. It needed an operating system that supported this feature though. The original plan was to produce a new system called CAOS (Commodore Amiga Operating System), but in an effort to get the machine finished quickly, Commodore outsourced the development of the OS to a company called MetaComCo, based in Bristol. MetaComCo ported TripOS across to the Amiga, and the result was AmigaDOS.

The software routines that displayed multiple screens, windows, dialog boxes and so on were collectively called Intuition. Intuition was entirely the work of RJ Mical, who remembers the hard work it took: "What a haul that was – seven months of 100-hour weeks to get it finished in time for the launch of the Amiga!"

Intuition was an outstanding achievement, but it wasn't without its quirks. The most famous is surely the Amiga's error-handling routine, which Mical himself has since described as "shabby". When a program crashed, the Amiga would pop up a nasty-looking screen displaying the words 'Guru Meditation' (though this was revised to 'Software Failure' on later Amiga machines). The Guru Meditation error was actually borrowed from a Joyboard game called Zen Meditation in which, bizarrely, the objective was to sit absolutely still. If you moved, you triggered a Guru Meditation error. (It's not hard to see why the Joyboard wasn't a resounding success, is it?)

The core of the operating system was contained within Kickstart, which was provided on disk with the A1000 but was held in ROM on later models. On top of this, you'd run Workbench from floppy disk (or later, hard disk), to provide the graphical user interface. Workbench was far more advanced than the GEM interface seen on the Atari ST, though the hideous blue and orange colour scheme of Workbench 1.0 put many people off using it for serious tasks.



The original Kickstart and start-up screens, plus Workbench 1.0 in all its garish glory

father of the Amiga was gone.

The following year, German PC manufacturer Escom bought Commodore's assets, including the Amiga. It created a new subsidiary to look after the Amiga side of things, named it Amiga Technologies, and brought in a few of the old Amiga guys. For a while there was talk of new products, but it came to nothing, and no new hardware appeared. Meanwhile, the PC was rapidly becoming the computer of choice in the home, as the multimedia explosion and the appearance of cracking 3D games such as Quake made the aging Amiga hardware look tame by comparison.

It soon became evident that Escom had over-stretched itself, and throughout the summer of 1996 the rumour was that VISCorp would acquire Amiga Technologies and use the hardware to power set-top boxes. But when it came to the crunch, VISCorp didn't have the money. In the end, it was PC manufacturer Gateway 2000 that stumped up some cash. By now though it was mid 1997, and the Amiga gaming scene was a shadow of its former self. Only a handful of companies still supported the system – most notably clickBOOM, which ported across Quake and Myst. The glory days of the Amiga were long gone. RG*

Interactive entertainment

Commodore felt that Amiga technology could be used to produce an appealing home entertainment system based around CD-ROM discs. To this end, in 1990 it launched the CDTV – essentially an Amiga 500 with 1Mb chip RAM and a CD-ROM drive.

Commodore commissioned plenty of market research and came to the conclusion that the CDTV should be marketed totally separately to home computer systems. When the machine was launched in June 1990 for a whopping £699, Commodore bizarrely told retailers to position it well away from the Amiga range so that people wouldn't associate the two systems. Needless to say, the CDTV didn't set the world on fire and was quietly dropped the following year.

However, Commodore was determined to produce a successful CD-ROM home entertainment system, so it had another go in 1993. The CD32 was basically an A1200 with a CD-ROM drive but no keyboard. It also had a custom chip called Akiko, designed to boost performance in 3D games such as Doom (which was massively popular at the time). For a while the CD32 sold reasonably well – PC CD-ROM titles were still in their infancy and Philips' CDi home entertainment system lacked software support, so prior to the release of the Sony PlayStation and Sega Saturn, the CD32 was the most successful CD gaming format of its day.

The CDTV and CD32 weren't bad machines, but why would you buy one when you could just get an Amiga computer instead?

Bundles of joy

From day one, the various Amiga systems came bundled with impressive selections of software designed to showcase the capabilities of the hardware. There were dozens of bundles over the years, with many of the most memorable created by David Pleasance of Commodore UK. We've picked out some of the most successful ones here.

A500 Batman bundle

Launched in October 1989 at £399, this included Deluxe Paint 2, plus three very good games – Batman the Movie, New Zealand Story and F18 Interceptor.

A500 Screen Gems bundle

Replacing the Batman bundle in September 1990, this £399 bundle was again games led. It included Back To The Future 2, Night Breed, Days of Thunder and Shadow of the Beast 2, along with the art program Deluxe Paint 2. With the exception of Shadow of the Beast 2, the games themselves were quite terrible.

A500+ Cartoon Classics bundle

This is probably the best remembered of the UK Amiga packages, but it was actually relatively short-lived. Launched in July 1992 at £359, it consisted of Deluxe Paint 3 and the games Lemmings, The Simpsons and Captain Planet.

A600 Robocop bundle

Launched during 1992 at £399, this included the games Robocop 3, Shadow of the Beast 3 and Myth (all of which were excellent), plus the 'serious' programs Graphic Workshop and Microtext.

A600 Wild, Weird & Wacky bundle

Another A600 pack from 1992, this £349 bundle included the games Silly Putty, Push Over and (best of the bunch by far) MicroProse Grand Prix. Deluxe Paint 3 also featured.

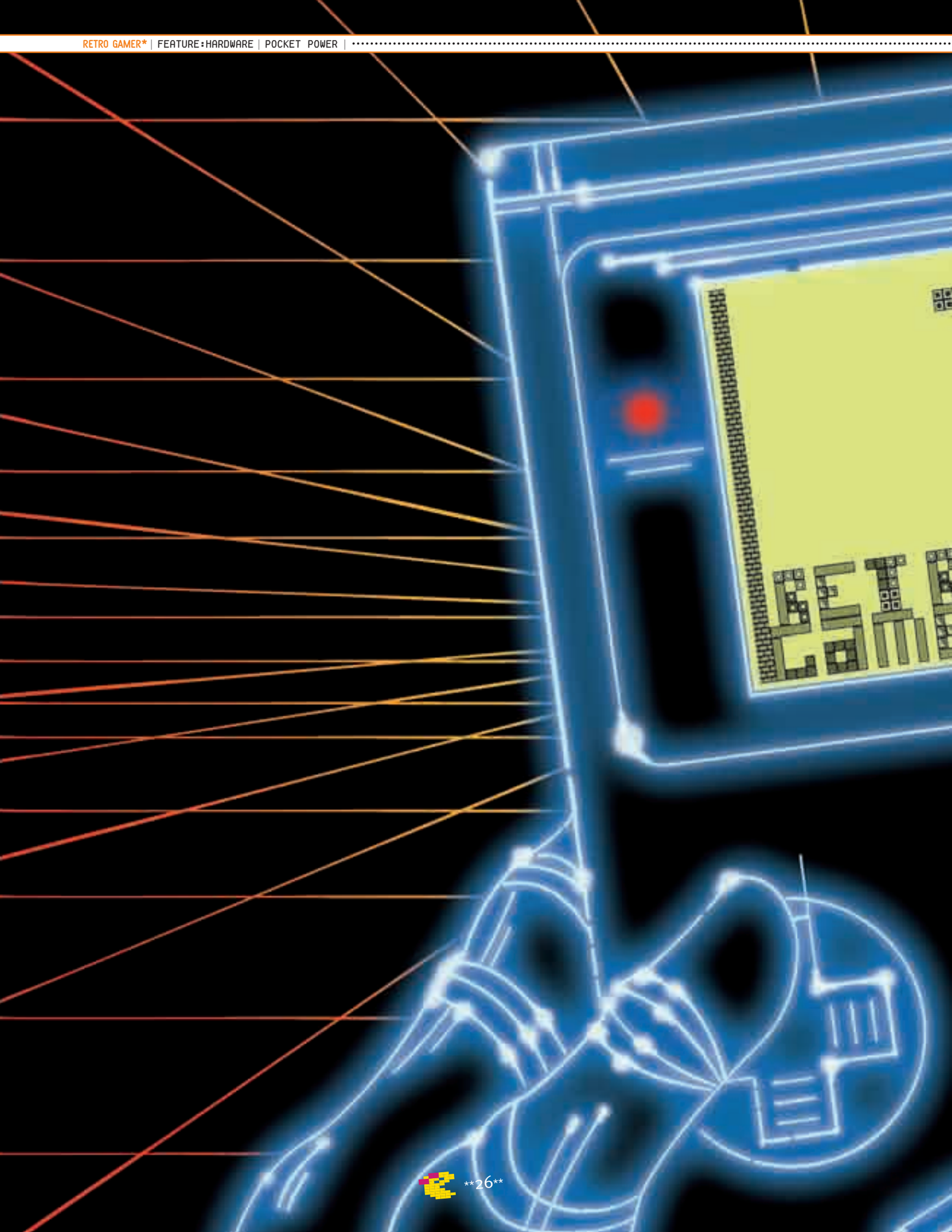
A1200 Desktop Dynamite bundle

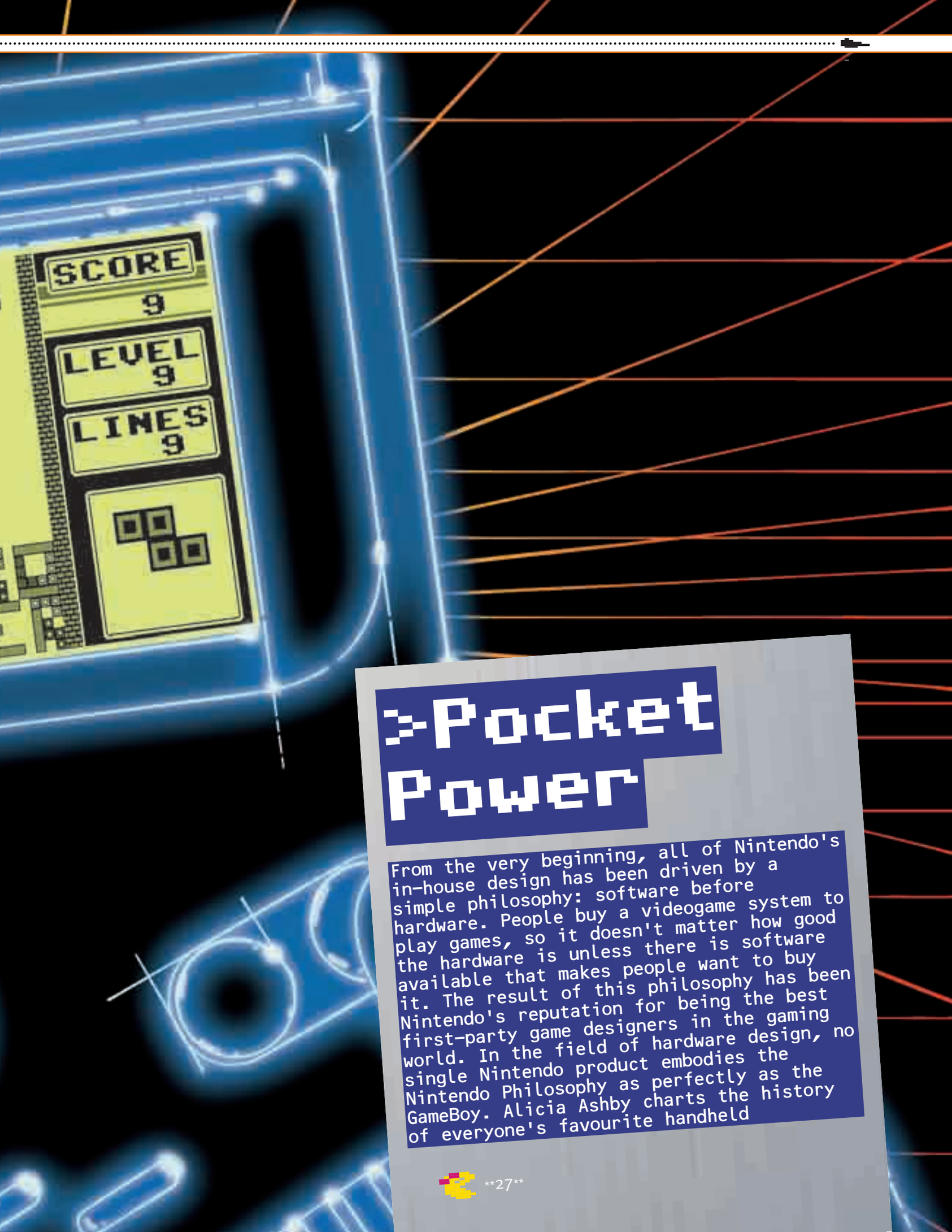
If you bought an A1200 in 1993, you probably bought the £350 Desktop Dynamite pack. It contained two slightly ropey games, Oscar and Dennis, plus copies of WordWorth 2 AGA, Deluxe Paint 4 and Print Manager, pushing the non-gaming strengths of the Amiga.

A1200 Comic Relief bundle

Another A1200 bundle released in 1993, the £399 Comic Relief pack did its bit for a good cause – for every bundle sold, Commodore donated £10 to the Comic Relief charity. The pack contained the official Comic Relief game, Sleep Walker (published by Ocean software), plus a special edition of Amiga Format magazine.

eMag





>Pocket Power

From the very beginning, all of Nintendo's in-house design has been driven by a simple philosophy: software before hardware. People buy a videogame system to play games, so it doesn't matter how good the hardware is unless there is software available that makes people want to buy it. The result of this philosophy has been Nintendo's reputation for being the best first-party game designers in the gaming world. In the field of hardware design, no single Nintendo product embodies the Nintendo Philosophy as perfectly as the GameBoy. Alicia Ashby charts the history of everyone's favourite handheld

It's a boy!

The GameBoy was the brainchild of the late Gunpei Yokoi, an engineer who also played a role in the creation of several hit Nintendo games. These include Kid Icarus, the first three Metroid games, and the Super Mario Land series. In the field of hardware design, he created the cross-shaped directional-pad part of the NES controller (or 'd-pad') and the infamous Virtual Boy console. After leaving Nintendo in 1996 he formed his own company, Koto, and worked in co-operation with entertainment giant Bandai to create a handheld called the Wonderswan that was only released in Japan. He continued to work with Koto until he passed away in 1997.

One of Yokoi's first projects for Nintendo was a line of handheld electronic toys called the Game & Watch series. Each unit was about the size of a pocket calculator and played a single game which had black-and-white graphics stamped directly on the LCD screen, along with a tiny digital clock displayed in the upper-right corner. About 60 titles were ultimately produced in the Game & Watch series, including such long-time Nintendo favourites as Mario Bros., Donkey Kong, and The Legend of Zelda. The earliest models went on sale in 1980 and the line continued selling until it was discontinued in 1991.

Although not easy to play or particularly sophisticated, the Game & Watch series became popular in Japan as a novelty gadget and collectible. While international business in South-East Asia and the United States was hurt by a proliferation of competitors and illegal bootlegs, the devices were still successful enough around the world to make millions for Nintendo. They also proved that consumers were willing to pay for the luxury of having games that they could play anywhere, regardless of the technological limitations of the games themselves.

The original GameBoy was the logical evolution of the Game & Watch line, incorporating many of the best features of Nintendo's successful NES console. Prototypes were ready as early as 1987. The features of the GameBoy were modest compared to then-current consoles, but fantastically advanced in comparison to the Game & Watch. The GameBoy played game cartridges like the Nintendo did, each retailing for about £20 to £25. Its four-colour greyscale graphics were generated by a 160x144 dot matrix and displayed on a somewhat green-tinted LCD screen. The console used simple four-channel sound that played through a speaker located on the front of the unit.

The original GameBoy bundle came complete with Tetris

A volume control wheel was located on the left side of the unit, with a headphone jack tucked away at the bottom. 64Kb of memory was available, while the beating heart of the machine was good old Z80 8-bit CPU. The whole thing was powered by four AA batteries that could provide over 30 hours of continuous play. A small serial port located along the right side of the unit allowed multiple GameBoy systems to be connected together by use of a special 'link cable', thereby enabling two players to play games together (provided they both owned a copy of the game).

The array of games for the GameBoy at launch was modest. The bundled title was Tetris, a Russian game whose popularity was rapidly becoming a worldwide phenomenon on the PC. Nintendo went to great lengths to acquire the rights to publish the handheld version of Tetris, eventually becoming embroiled in a lawsuit with Atari that dragged on for four years. However, the immense

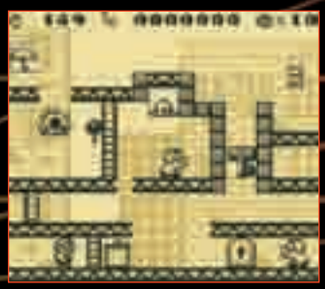
Nintendo's Game & Watch handhelds featured many of its most popular characters

success of the GameBoy version of Tetris made it all worthwhile for Nintendo, especially since the court case was eventually decided in its favour. After a 1989 launch, approximately 32 million GameBoys with Tetris had been sold by 1992. Other games available at launch included Alleyway, Golf, Tennis, and Super Mario Land. Many more titles quickly followed, but for the early years of the GameBoy's lifespan, Tetris towered over all of them. It was *the* reason to buy a GameBoy.

Power play

As early as 1991, Nintendo began increasing the memory capacity of GameBoy cartridges. While original GameBoy cartridges could hold as little as 32Kb of information, the larger cartridges could hold as many as 256 or 512Kb. This extra RAM built into the cartridge itself translated directly into improved graphics and functions that seemed to exceed the GameBoy's hardware capacity. This programming tactic originated as an NES programming technique, used to make complex games like Super Mario Bros. 3 possible.

Nintendo also released a new peripheral that tried to link the success of the GameBoy with the success of the Super Nintendo in 1991. The Super GameBoy was a modified Super Nintendo game cartridge that enabled users to play colour versions of GameBoy games. The cartridge itself held parts similar to those found inside a GameBoy unit, with a slot located in the front for the GameBoy games to be inserted. The games would then be displayed on the television screen



Compare the monochrome version of Donkey Kong with the Color version

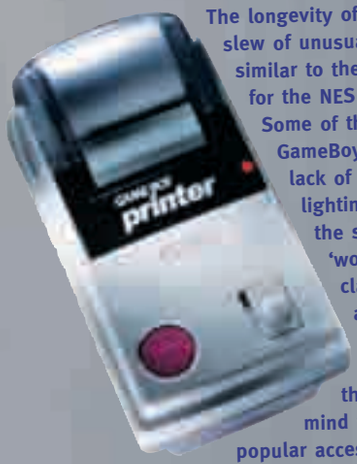
in colour, and would be played using the Super Nintendo's controllers. For early games the player could select which of the possible four-colour palettes they wished to use, while later games like Metroid II were programmed with default colours. A 100-level version of the Nintendo classic Donkey Kong was released alongside the Super GameBoy, the port designed to show off the Super GameBoy's colour capabilities.

>Losing hand

Nintendo's rivals tried to compete with the GameBoy from the day it was launched, hoping to rely on the appeal of cutting-edge technology. Atari released the Lynx in 1989, and Sega went to work on a handheld at the same time. Sega's handheld was released in 1991 as the Game Gear, alongside Atari's improved Lynx II. Both the Game Gear and Lynx had technological capabilities vastly superior to the GameBoy's, including colour graphics, backlit screens that were visible in any lighting condition, and superior sound. The Game Gear was more technologically advanced than Sega's 8-Bit Master System console, while the Lynx had 16-bit processors that could rotate sprites and achieve 3D-like effects. However, both systems retailed for around £140, which was £50 more expensive than the GameBoy. The Game Gear had problems securing third-party developers and as a result suffered from a lack of good games, while the Lynx was poorly marketed.

However, the most critical flaw of the Game Gear and Lynx was their problem with battery life. Both systems ran off of six AA batteries with a maximum battery life of about five hours, a rate of power consumption that seemed appallingly inefficient in comparison to the GameBoy. The source of the problem was the backlit colour screens, which required a lot of power to run for any length of time. Nintendo had, in fact, decided not to use such a screen in the GameBoy because its engineers foresaw how poor battery life would cripple sales of a portable system. While both the Game Gear and the Lynx had their admirers, their much higher price tag and unattractive battery life left them incapable of competing successfully with the GameBoy. Both competing handhelds were discontinued by 1997, while the GameBoy remained in production until the introduction of the GameBoy Advance in 2001.

>Gaming gadgets



The longevity of the GameBoy resulted in a slew of unusual peripherals and add-ons similar to the wave of peripherals released for the NES during its peak sales periods. Some of the peripherals addressed the GameBoy's shortcomings, such as the lack of a lit screen. A wide variety of lighting accessories were marketed for the system, including bendable 'worm lights', light shields that clamped over the GameBoy's front, and even installation kits that would let players install backlighting into the screens on their own (provided they didn't mind voiding their warranties). Another popular accessory was the magnifier, a simple magnifying glass device that would clamp over the GameBoy's screen and make it appear larger and easier to see. A four-player multi-tap that allowed up to four GameBoys to link up was released, but was difficult to take advantage of because only a small number of games supported it.

An ill-fated attempt by Nintendo to push the GameBoy as a low-cost PDA in 1998 resulted in the release of the odd GameBoy Camera and GameBoy Printer. The Camera allowed the player to take pictures of things that would be saved to the camera's battery and could then be displayed on the GameBoy's screen, while the Printer could print images taken from the Camera or some games onto rolls of specially sized paper.

Custom-designed tote bags that held a GameBoy, a few peripherals, and a selection of games also became popular as a way of making the system easier to travel with, while also protecting it.

Neither move was entirely successful. It was more difficult for programmers to make the larger cartridge size translate into more sophisticated games on the GameBoy than it had been on the NES, so the quality of software slowly began to stagnate. Players were uninterested in playing GameBoy games on the Super Nintendo, since they could simply play SNES games on it instead, and there was little demand for a new version of Donkey Kong. So, with little to sustain interest in the GameBoy, sales finally peaked in 1993 and began to decline during 1994. It would have seemed like an ideal time for a competitor to release a rival handheld system, but after the financial failure of the Lynx and Game Gear, no one seemed interested in exploiting the opportunity.

Nintendo did its best to try and keep the lucrative handheld market from shrinking. It successfully drew consumer attention back to their portable system in 1997 with the release of the GameBoy Pocket. While its system specs remained the same as the GameBoy's, it used technological advances to shrink the size and weight of the GameBoy by about one-third. It also required only two AAA batteries to run, although its maximum battery life was now slashed down to 10 hours. The GameBoy Pocket was produced in a wide variety of colours, in contrast to the uniform pale grey of the original GameBoy, giving buyers the opportunity to select whatever model they felt was most attractive. The smaller size and new look was successful in rejuvenating the GameBoy's sales, which grew to about 55 million units by 1998. The 'new' GameBoy was simply more convenient than the older model, and the sleek, modern look appealed to a new generation of gamers who were more likely to be teenagers or college students than children.

Pokémania

In keeping with the Nintendo Philosophy of software being more important than hardware, the true saviour of the GameBoy was ultimately another game. The release of the two Pokémon games, Red and Blue, in early 1998, completely rejuvenated the GameBoy system. Although the two RPGs were a bit too complex for the children that the merchandise would ultimately appeal to, the popularity of the games quickly soared. As happened years before with Tetris, many people bought GameBoys for the first time just so they could play the game that was at the centre of so much excitement. The fact that trading monsters with a friend was a vital part of gameplay made the link cable popular again for the first time in years, and gave players even more incentive to convince their friends to pick up the game. The collecting craze quickly spun out of control, spawning all sorts of Pokémon-themed merchandise such as collectibles included with children's meals, a trading card game, and an unimaginably large array of toys. The games were eventually supported by the release of a Pokémon animated TV series and accompanying cinema releases, with even more lines of toys and plush collectables. Kids and gamers who didn't mind Pokémon's cute look couldn't get

Pikachu and friends revitalised the ailing GameBoy

enough of it, while critics of the craze made it more popular by trying to rail against it.

True technicolor

Nintendo eagerly capitalised on the influx of new players by introducing the GameBoy's final and most long-awaited facelift: the introduction of the GameBoy Color. Slightly larger than the GameBoy Pocket and debuting at just £80, the GameBoy Color boasted a more robust 8MHz processor that could run in single mode for playing older GameBoy titles. The GameBoy Color's highly reflective LCD screen could display up to 56 colours simultaneously and didn't suffer as severely from the GameBoy's visibility problems in very bright or very dim light. The system ran off of two AA batteries, with an average battery life of about 13 hours. While the GameBoy Color did require a link cable in order to play in two-player mode with other GameBoy units, it also boasted an infrared port that let players wirelessly share information.

Best of all was the fact that the GameBoy Color would play all previous GameBoy games in colour, using the Super GameBoy palettes for later GameBoy games. In turn, most early GameBoy Color games could be played in black and white on older GameBoy models. This compatibility allowed the GameBoy Color to completely capitalise on the vast audience of GameBoy owners which already existed, while still enticing more players into buying the new and improved model. While early versions of the GameBoy Color were sold with no bundled game, Nintendo later wisely chose to give the new Pokémon Yellow game away with the system. Part of Yellow's design gimmick was that it altered the game so that the characters and plotline more closely resembled that of the animated series, and there can be little doubt that many children clamoured for a new GameBoy Color based on that alone. Nintendo also retained the practice of producing the console in a wide variety of colours as with the GameBoy Pocket.

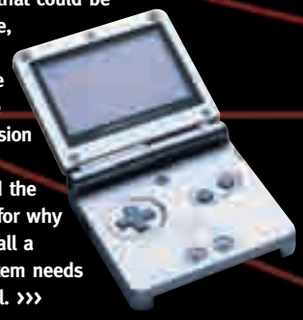
The GameBoy Color's technology was not a remarkable advancement over the GameBoy Pocket, and yet those simple upgrades were enough to propel the sales of the system to unprecedented heights. Although estimates vary, it's safe to assume that around 100 million units had sold worldwide by the time the system gave way to the 32-bit GameBoy Advance in 2001. Generous estimates will credit the GameBoy Color version alone with sales of 60 units. Such success completely dwarfs the sales of any previous Nintendo console, even the venerable NES. In fact, it makes the GameBoy the best-selling videogame system in history. Such monstrous success seems baffling, until one takes a moment to consider the Nintendo Philosophy and the precedent set by Gunpei Yokoi's early work with the Game & Watch series.

The GameBoy Color was sold in a variety of styles

Boy done good

What drew gamers to the GameBoy was the promise of gaming on the go, combined with the 'luxury factor' of having a slick-looking technological gadget to pass the time with. The GameBoy's system library eventually contained well over 1,000 titles, including many ports of console and arcade hits, and promised players a nearly limitless variety of games to choose from. With a low price point even in its final version, and

trend-setting games like Tetris and Pokémon to lure players into their first big purchase, it was easy for the GameBoy to spread into the hands of people who might never again own another gaming system. The system's technological limitations made sure the majority of games stayed simple enough for wide audiences to have fun with, and its relatively small size made it attractive as an accessory that could be slipped into everything from backpacks to briefcases. The GameBoy's promise to the player was gameplay that could be enjoyed anytime, anywhere. In this respect, the GameBoy is the ultimate expression of the Nintendo Philosophy, and the best argument for why fun games are all a videogame system needs to be successful. ›››



>GameBoy Top 10

With so many titles released from the GameBoy, trying to compile a list of top 10 games for the system is no easy task. Still, there are some carts that clearly stand out from all the rest. The following ranking represents a list of the 10 most significant, popular, and fun titles released for the GameBoy. Chances are that most GameBoy owners had at least two or three of these titles in their personal collections, and many more. The titles are ordered by importance and quality, from least at 10 to greatest at 1. Looking at the list as a whole will make it clear that a limited number of genres are represented, which is a result of the limited nature of the GameBoy – it handled some genres much better than others. For the genres represented, their GameBoy incarnations are timeless examples of good design and fantastic gameplay.

<10> Wario Land: Super Mario Land 3

Nintendo, 1994

Producing a great side-scrolling platformer for the GameBoy is no small feat by itself, but what's most memorable about Super Mario Land 3 is how little of the

game is concerned with Mario. Instead, it launched the long-running Wario Land series, and introduced a whole new cast of characters. This game is Wario's first time acting as a game's protagonist, and also the first time he was pitted against Captain Syrup and the Brown Sugar Pirates. Letting the player be the bad guy isn't something anyone ever expected from Nintendo, but in the long run, fans have come to love Wario almost as much as his more famous rival.

<09> Metroid II: The Return of Samus

Nintendo, 1992

Metroid II was Nintendo's first real attempt to put an NES-quality game on the GameBoy, and whether or not it succeeded is debatable. Metroid II at points seems unreasonably constrained by the dimensions of the GameBoy's tiny screen, but the game's music and graphics pushed further toward NES sophistication than the system's hardware seemed capable of at the time. The end result is by no means a perfect game, but one which still emerges as one of the best and most interesting titles in GameBoy's library. Although it is often outshone by the superb Metroid games later made for the Super Nintendo and GameBoy Advance, anyone with an appreciation of the original

GameBoy's limitations will be delighted by how much Metroid II does to bring the feel of the NES classic to the handheld.

<08> Final Fantasy Adventure

Square, 1991

Originally the first of the popular Seiken Densetsu games, Final Fantasy Adventure was released in the UK as Mystic Quest and recently re-released for the GameBoy Advance as Sword of Mana. Despite fierce competition from the popular Final Fantasy Legend series, the game that Americans called Final Fantasy Adventure was never dethroned as the best third-party RPG for the GameBoy. Boasting a perfect combination of Final Fantasy's aesthetics with

Legend of Zelda-style action-RPG controls, and one of the few truly great musical scores to feature on the GameBoy, Final Fantasy Adventure was unsurpassable.

<07> Gargoyle's Quest

Capcom, 1990

Would Nintendo have ever given Wario his own game if Capcom hadn't let Firebrand, the villain from Ghouls 'n' Ghosts, have one first? Gargoyle's Quest was one of the first games to prove that the GameBoy could spawn franchises for Nintendo's bigger systems, and that a spin-off game could be extremely successful. Although it's not a widely remembered game today, Gargoyle's Quest set all of these precedents for one good reason: it was a fantastic game. An unusual and difficult blend of side-scrolling platform and RPG elements, Gargoyle's Quest proved that the GameBoy could cater to even the most skilled and serious of gamers.

<06> Kirby's Dream Land

Nintendo, 1992

Short and sweet, Kirby's Dream Land appeared with little fanfare and caught on in a big way. With innovative gameplay, a fantastic

score, tight controls, and some of the most beautiful graphics the GameBoy could offer in its early life, Kirby's Dream Land quickly became one of the GameBoy's must-owns. One of Nintendo's most popular mascots today, Kirby's debut outing had a charm that few games on any platform can match. Although the game can easily be finished inside of an hour, chances

are you'll find yourself playing it for much longer, mesmerised by Kirby's ability to hop, float, and spit his way to victory.

<05> Super Mario Land 2: 6 Golden Coins

Nintendo, 1992

It takes one hell of a game to dethrone Kirby as the king of GameBoy side-scrolling platformers, but Mario Land 2 has what it takes. Upon playing the game, it becomes obvious to any Mario fan that they're playing a miniaturised Super Mario World. Bringing SNES-quality play control to the GameBoy would be enough of an achievement by itself, but Mario Land 2 ups the ante by adding in non-linear gameplay, a few minigames, NES-quality graphics, and a great score. Then, just to make the deal too sweet to resist, Mario Land 2 also features the debut of Mario's wonderfully rotten rival Wario. The result is a portable

Mario game so perfect that Nintendo never even tried to improve on it. Super Mario Land 2 is Mario's final starring role on the GameBoy system.

<04> The Legend of Zelda: Link's Awakening

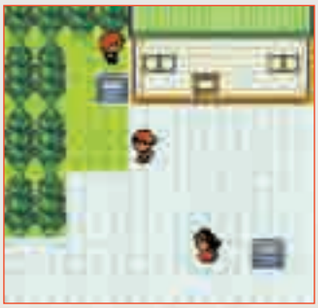
Nintendo, 1993

Link's Awakening manages to be much more than a just great GameBoy game – it's also a great Zelda game, often considered by fans to be one of the finest in the series. Given the high esteem that gamers hold the Legend of Zelda series in, that's no small

accomplishment. So influential was Link's Awakening, in fact, that many elements of the modern Zelda games, such as the magical ocarina and use of raft sailing, directly reference it. The gameplay in Link's Awakening is remarkably like that of Link to the Past for the SNES, but with the addition of side-scrolling elements and the ability to equip items in different combinations. The additions made sure that Link's Awakening didn't just play like a shrunk-down Link to the Past, but instead had a feel as singular and unique as any other Zelda game. Combined with top-notch graphics, excellent sound, and one of the most touching plotlines of any Zelda game, it becomes easy to see why Link's Awakening has made such a big impact despite being written for such a small system.

03
Pokémon Gold, Silver & Crystal
Nintendo, 1999/2000

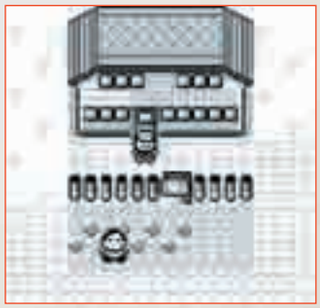
Things looked bad for the GameBoy as it moved into the 21st Century. Even with the release of the GameBoy Color, the system's library was slowly degenerating into a wasteland of cheap licence games, ports, and re-releases. The original Pokémon craze was starting to cool and fans were clamouring more loudly than ever for Nintendo to release a more technologically advanced handheld system. Nintendo needed one last great GameBoy game, something so good



and so satisfying that it could keep the system's momentum going until the release of the GameBoy Advance. The second wave of Pokémon games fit the bill perfectly. In terms of gameplay, Gold and Silver are similar games to the originals, but much longer and with many more monsters and items to collect. Nintendo also introduced a time clock so that events and Pokémon could synchronise their activities to the flow of time in the real world. The games were as big, beautiful, and fun as the originals, and that's all any Pokémon sequel could've hoped to achieve. Gold, Silver, and Crystal were the final major releases for the GameBoy, and high notes for the system to go out on.

02
Pokémon Red, Blue & Yellow
Nintendo, 1996/1998

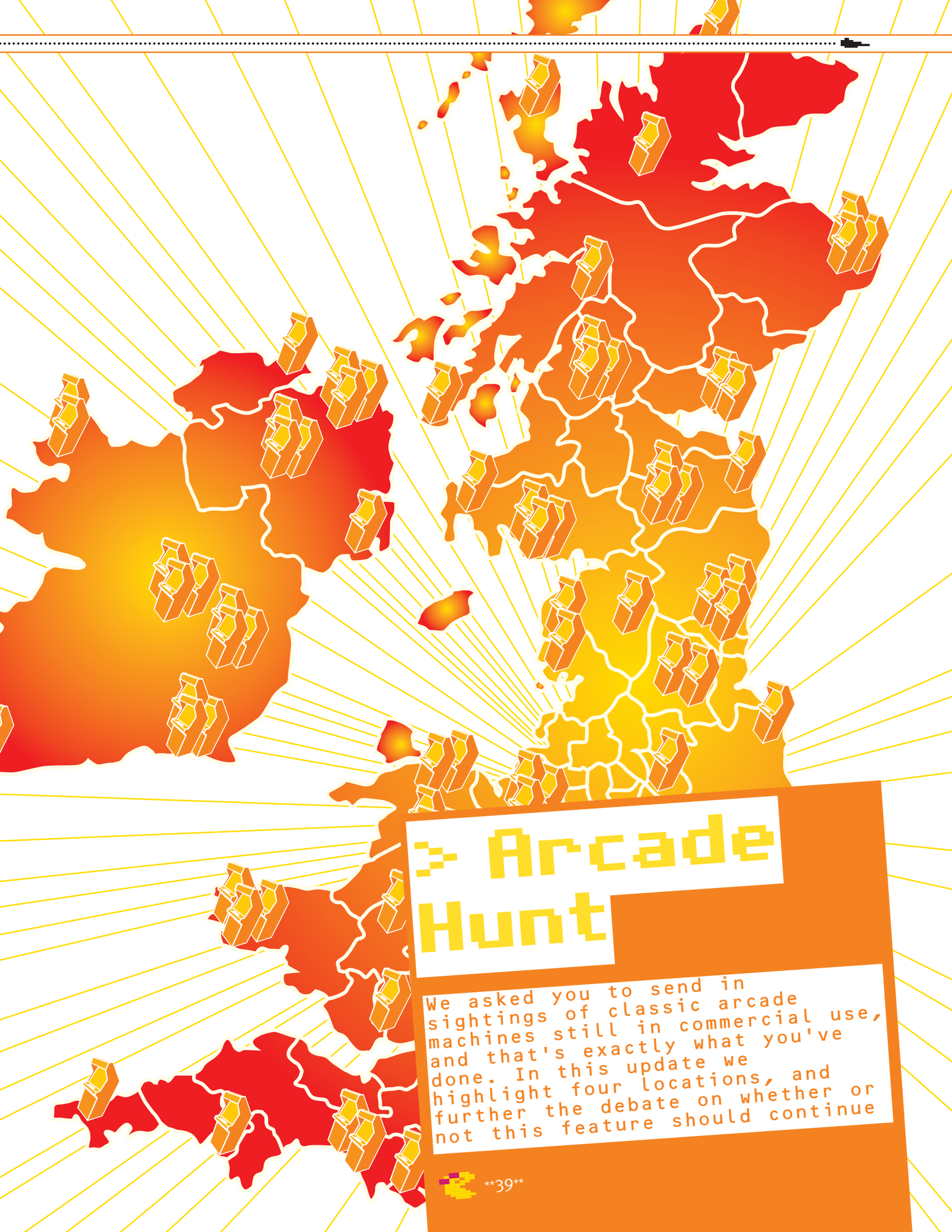
The first round of Pokémon games weren't only important GameBoy games – their release started an international multimedia merchandising blitz of startling magnitude. That



alone would be enough to secure any game a spot in the top 10, but Pokémon wasn't just an important game – it was also a great game. Pokémon introduced the western world to the idea of the monster-training game, where the player ran around catching monsters and trying to level them up into powerhouses. You could customise your team with any of 151 monsters, and then further customise the monsters by picking their moves as you raised them. The real goal of the game, after completing the story mode, was to collect all 151 of the game's monsters. But some monsters were exceptionally rare and could only be acquired by attending special Nintendo events, and on top of that, each game included a slightly different balance of monsters. The only way to get all 151 was to connect with a friend's Pokémon game via link cable and trade monsters, and you could also use the link to battle your team of Pokémon against your friend's while you were at it. With such an addictive premise and fun gameplay, soon GameBoy owners across the country were obsessed with trying to catch 'em all.

01
Tetris
Nintendo, 1989

While Tetris was originally released for home computers, it developed a special relationship with the GameBoy by virtue of being the system's first bundled title. The GameBoy version was by far the most popular of all the versions ever released, with over 30 million copies sold, and in many minds Tetris became inextricably linked with the GameBoy itself. Tetris is a famously simple game, and the progenitor of the entire 'falling block' genre of puzzle games. The elegant simplicity of Tetris' design attracted gamers from all walks of life, rather than just the usual audience of kids and teenagers. In initial sales, 46% of all GameBoy purchasers were adults who bought for themselves, rather than for children. Even then-President George Bush was photographed playing Tetris on the GameBoy. By pairing the GameBoy with Tetris, Nintendo immediately assured wide popularity for its handheld system, while also emphasising the GameBoy's ability to let you play games anytime, anywhere.



> Arcade Hunt

We asked you to send in sightings of classic arcade machines still in commercial use, and that's exactly what you've done. In this update we highlight four locations, and further the debate on whether or not this feature should continue

Last one inside gets to use the pink gun...

Skegness

Ant Cooke goes in search of more arcade treasures

After getting my report on Tramore printed in issue 7, I decided to continue my search in the much-maligned seaside town of Skegness. While not entirely classics, some of the games to be found at Skegness are extremely rare.

The amusement centres along the North Parade aren't clearly named, so it's best to start from the Quorn Hotel (where I stayed). From the hotel, the first arcade you come across is a little deceiving. It seems to be filled with fruit machines, but if you work your way to the rear of the premises, past the Manx TT and Daytona machines, you'll find a true behemoth – The Simpsons four-player machine! Unlike many multiplayer games, where the players have to crowd around a large cabinet, this particular example has the controls on a deck, along with seats for the players, and a separate monitor (which resembles the TV from the show). It's not in the best condition – the controls are sticky (yeukk!) and some of the front panel has peeled away – but even so, the monitor has no screen burn, and it plays brilliantly, especially with three or four players. In addition to The Simpsons, I also found Lethal Enforcers, SCI (Chase HQ 2) and Beast Busters, SNK's rare-ish three-player lightgun game.

The next arcade along the North Parade is among the best. Besides a few modern games, this arcade houses Real Puncher, Turbo OutRun (sit-down), Rad Mobile, GP Rider, Namco's obscure Steel Gunner, a four-player version of Suzuka 48 Hours (complete with a giant board showing who's in the lead), Street Fighter 2, Super Street Fighter 2 Turbo, Alien 3: The Gun, Operation Thunderbolt, Lethal Enforcers, F1 Exhaust Note, and another Simpsons four-player machine. The Simpsons and the Rad Mobile machines were in bad shape, with heavily discoloured displays.

Unfortunately, this is where the trail of old machines runs cold. The next arcade only has a Point Blank 2 machine. However, all was not lost. The arcade operator, wondering why I had taken a picture of Point Blank 2, gave me directions to an arcade "with all the old games". It sounded like a Penny Arcade that they often have down by the sea, but it turned out to be a little arcade with about 10 old games! This particular place can be found next to the Natureland Seal Sanctuary.

Inside I found Capcom's Cadillacs and Dinosaurs, the four-player Teenage Mutant Ninja Turtles, Street Fighter 2 Turbo, Konami's Asterix, Konami GT, Moto Frenzy (which you have to be over eight years old to play), another GP Rider, NBA Jam, After Burner (stand-up), four-player Wrestlemania (in a TMNT cabinet, for whatever reason), Danny Sullivan's Indy Heat, and Ironman Ivan Stewart's Super Off Road. After Burner was in poor condition with a broken monitor, Street Fighter 2 Turbo was unplayable due to a faulty coin slot, and Super Off Road could only support two players as one of the wheels was broken. Even so, the other games, especially Teenage Mutant Ninja Turtles, were in very good condition.

Next up is the huge arcade on Skegness Pier. It's mainly filled with modern games, but there are a few retro games here and there – specifically Point Blank 2 and 3, and an OutRun sit-down machine in superb condition. Apart from this, and Namco's Cosmo Gang game, there's nothing else of interest on Skegness Pier, unless you like log flumes.

Overall, I'd say Skegness is the place for fans of 90s' games. Nearly all of the retro games here are from that era, with next to no 80s' games. Still, bring along three friends to play The Simpsons and TMNT, and a great time is almost guaranteed!

Rad Mobile appears to have crashed into a jungle jeep. Damn feline drivers!

Ryde, Isle of Wight

Joe Warner samples the delights of Arcadia

Ah, the Isle of Wight, home to one of the greatest arcades in Britain. This arcade goes by the name of Arcadia and is located in the seaside town of Ryde. Arcadia has a lot of newer machines, fruit machines and various other attractions. But what makes it so special is the 25-plus classic machines located there.

Arcadia consists of three rooms, and during the summer all three are open and in full swing. The first room is the smallest of the three, but has some great machines. First up are four generic cabinets containing Final Fight, Mortal Kombat, Street Fighter II Hyper and King of Fighters 95. Dedicated cabinets include Track & Field,

Arcadia in Ryde is home to over two-dozen classic coin-ops

Hang-On is just one of several Sega sit-down models to be found in Arcadia

East Coast

Darren Muir goes arcade spotting in Suffolk and Essex

I've just returned from a long weekend on the east coast of England, taking in three seaside centres in just three days to search for old, but fondly remembered, arcade games. It all started at the Southwold Pier Pavilion, Southwold, Suffolk. Inside I found three uprights – Nemesis, After Burner and Turbo OutRun – plus MayGay's Arcade Classics II (which plays eight non-original versions of classic games including Pac-Man, Donkey Kong, Space Invaders and Frogger). All of the games were 30p or less and fully working.

A sit-down Turbo OutRun in need of tender loving care

My next stop was Claremont Pier, Lowestoft, Suffolk. The games here were newer, with titles such as Starblade (sit-down), Puzzle Bobble (Electrocoin sit-down), Metal Slug 2 (Electrocoin sit-down) and Sega Rally (two-player sit-down). Unfortunately, I was unable to take in Great Yarmouth's arcades, but I had already been there in May and I cannot remember any classic machines at all, just rows and rows of identikit fruit machines – a grim sight. Barrons, one of the big arcades, had even closed down. Looking through the glass I could see a few machines left inside and a price list of what was for sale.

This left Clacton-on-Sea in Essex. None of the main arcades had any classics, but the arcade on the pier came up with a few gems. I found Track & Field (the right button had been replaced – all bashed out I guess), Ironman Ivan Stewart's Super Off Road (three-player upright), Great 1000 Miles Rally (Electrocoin sit-down), Euro Football Champ (Electrocoin sit-down), Ridge Racer (sit-down) and OutRun 2 (two-player sit-down). Track & Field was just 10p a go, while the others (with the exception of OutRun 2) were 20p.

Heartbreaking moment? Finding a non-working, well-worn and rather tatty sit-down Turbo OutRun at Claremont Pier. It was in the side annexe of the arcade. I had to push past a couple of other dead machines (NBA Jam Tournament Edition and some Namco thing) to take pictures of it. My fiancée was keeping watch in case of arcade staff coming up and asking me what I was doing! I wanted to take it home, put it a warm garage and eventually get it working again, back to its former glory. But I live in a top-floor flat, don't have a garage, don't own a van, and don't get on with electrics and power tools too well. Life is not fair.

Forget the sun, sea and sand. There's arcade machines waiting inside!

The sit-down version of Space Harrier in all its glory. Don't forget to buckle up

1942, Taito's Speed Race CL-5, Hard Drivin', Sprint 2 (which sadly wasn't working), Thunder Blade (sit-down) and Enduro Racer (sit-down). All of the machines were in top condition and set to 20p per play, except Thunder Blade and Enduro Racer which were 30p, and Sprint 2 which was 10p. But, that's not all. There's one more machine which is the highlight of the first room – an original Space Invaders, oh yes. It's in excellent condition and set to 20p per play.

The second room is the biggest room, and while it's predominately packed with fruit machines and 2p pushers, there are some real classics hidden away at the back. Best of the bunch is the original Asteroids, which is in great condition and set to 20p per play. Also present are the sit-down versions of Hang-On and OutRun (amazing), both set to 30p per play. This room also has a number of standard cabinets running Pac-Man, Galaxian, Mr. Do, Puzzle Bobble, Street Fighter II and Metal Slug.

The last room is home to possibly the coolest machine in the whole arcade – a sit-down Space Harrier in lovely condition. The manager of Arcadia told me there are only five of these babies in the whole country.

So that's pretty much it for classic machines in Arcadia. Impressive line up, don't you think?

The rare sight of Sprint 2. Sadly, it wasn't working and one of the steering wheels was missing

Why, it's a veritable wall of classic arcade machines!

urking in the dark – onami's manic Simpsons game

Ban hunting?

Alan Jacobs hones in on Hunstanton

The cockpit to Sega's Space Tactics is a little worn, but not bad for a 24-year-old machine

Back in issue 7, we printed a letter from Alan Jacobs. Alan pointed out that we may have shot ourselves in the foot with this feature. After all, pointing our the location of classic coin-ops is simply doing the legwork for private collectors and dealers. Since then we've received lots of letters from people for and against Arcade Hunt. Alan himself has also been back in touch with some encouraging information. Here's what he had to say:

Dear Retro Gamer

Thank you for publishing my letter regarding the banning of the Arcade Hunt article. I mentioned an arcade full of classic machines but would not disclose its location. Well, I revisited the arcade on Monday 6th September and spoke with the arcade owner and two other people who worked in the arcade. I made sure that Paul, the owner, understood that this was a very unique arcade, and it should remain that way. I even asked him not to sell any more machines, but to build up more games and turn it into a retro arcade.

The name of the arcade is Thomas's Showboat Family Leisure Centre, and it's in Hunstanton, Norfolk. I'm revealing the location so that readers can visit this arcade and express their wish to retain the machines and create a retro arcade. If this happens it'll probably be the only one in this country. I suggest you visit the site for yourselves to see how brilliant it really is. What follows is a short log of my recent visit to Hunstanton.

My friend Pete and I arrived in Hunstanton about 11am after a two-and-a-half-hour drive from Rainham in Essex. The first arcade I visited was overlooking the beach (I wasn't able to visit this arcade on my previous visit because it was closed). Inside they had The Simpsons, Mortal Kombat 2 and Operation Thunderbolt. A few steps away were Track & Field and G-Loc, and just round the corner was a sit-down Ridge Racer.

Finally I couldn't hold the suspense any further and had to cross the road to the main arcade – the one I fell in love with back in May when I was on holiday here. I took Pete through the main entrance of the arcade where all the usual fruit machines and modern games were. I then led him through into the room just off of the main arcade. Inside were a total of 17 games ready for us to play. As we walked around I pointed out some of the games that were very rare, probably not another working one in commercial use in any other arcade in the country. Yet here they were, in full working order and ready for us to play again. Out of the 17, the two rarest games must be the sit-down models of Sega Monaco GP and Sega Space Tactics, both from 1980. They were mint condition and cost only 20p a game. Space Tactics was excellent – it's hard to believe that the whole monitor moves around to line up your sights rather than the cross-hair moving. I'm confident these machines can't be found in this condition and fully working anywhere else in the country.

In total I counted 17 original retro arcade machines all together in the same room. In addition to Monaco GP and Space Tactics were Hang-On, The Simpsons, Mortal Kombat 2, Snapper (Pac-Man), OutRun, Operation Wolf, Operation Thunderbolt, Space Harrier, Rad Mobile, Hard Drivin', Afterburner, NBA Jam Tournament Edition, G-Loc, Chase HQ and World Cup '90. Lunar Lander, Pac-Man, Shark Attack and Super Monaco GP were also in store.

After playing many of the games it was time to find the owner Paul. I showed him my copy of Retro Gamer issue 7 and he read my original letter. I told him that his machines should be preserved for future generations to enjoy. He did agree with me, but ultimately he's a businessman. If the old games are not making money then he'll strip them and destroy them like he's done so many times in the past. I think that I've enlightened him a little though. So with a bit of luck and plenty of publicity he may turn Thomas's Showboat into a full-time retro arcade.

It would be interesting to hear from your readers whether there are other arcades like this in Britain. Yes, there may be many with two or three, but what about 17 with several more waiting for their turn on the shop floor?

My final note is to say continue searching, but take the time to speak to the manager or owner and tell them that they have unique machines in their arcades. If they are made aware of this they may build upon them, rather than sell them or scrap them.

Kind regards, Alan Jacobs

Rows of classic cabs all in immaculate condition

The arcade is located on Hunstanton's Central Promenade

Rhyl revisited

For our very first Arcade Hunt article we visited Rhyl in North Wales. Well it appears that someone has since done what Alan Jacobs predicted and snapped up all the retro machines we covered. A resident of Rhyl sent us the following email:

Hi Retro Gamer

I thought I'd update you all on the Arcade Hunt article in Issue 5. Martyn spent a day hunting for retro cabinets in the delightful seaside town of Rhyl. He found quite a few machines worthy of retro status, the highlight being the Scramble upright in the Joyland arcade. I live in Rhyl and know the featured arcade well.

I visited the arcade last week and, surprise surprise, the Scramble cabinet is not there anymore. I asked the owner about it and he told me that he'd sold it last month. The same buyer also bought the Operation Wolf cabinet from the arcade. In addition to these, the buyer had a Battlezone and a Lunar Lander from the back, albeit the owner said they were both dead. All in all, a nice haul to the budding entrepreneur/collector.

So it's official. Rhyl is now a Retro-Free Zone! I am reluctant to criticise Retro Gamer for this outcome, as I am sure this was not intended. But the fears and observations of the author of the Ban Hunting letter in issue 7 are a reality.

I suggest you save your petrol money and leave these retro machines be! Let them be enjoyed by the few enthusiasts fortunate enough to know of their existence.

Fairziff – www.UKretro.co.uk

*By sheer coincidence, we discovered that the buyer in question was Jonathan Thompson of Retro Arcade Machines (**www.retroarcade.co.uk**). Jonathan is well known to us as he provided Retro Gamer with the retro arcades we took along to the Classic Gaming Expo and Gamestars Live shows in the summer. We got in touch with him to find out more.*

Retro Gamer: Tell us more about Retro Arcade Machines.

Jonathan Thompson: The company started in 1999 after I bought an old Star Wars machine for £175 from an arcade called the Silver Dollar in Rhyl. I then sold this machine for £5,500 to a Star Wars collector in London – he was a record producer. Then I bought another couple of Star Wars machines and sold them for a couple of thousand each.

RG: So how does the business run – you track down the machines, buy them up and refurbish them?

JT: Basically yes. We made an executive decision early on to replace the original boards with MAME in all our machines.

RG: Isn't using MAME seen as sacrilege?

JT: Well in the early days we didn't use it, but the original hardware kept failing all the time. With MAME you can run an arcade in a busy bar for five years and it will never fail. That's what MAME offers you.

RG: Besides selling machines, you also rent machines?

JT: We will rent them, hire them, do corporate events with them, take them to conventions and so on.

The Scramble machine we found in Rhyl is now being repaired and refurbished by Retro Arcade Machines

Jonathan Thompson seen here with his Space Invaders stock

RG: Can you tell us some of the places where your machines have ended up?

JT: I've sold machines to Fab Café, which is a cult-TV theme bar located slap-bang in the middle of Manchester. They've ended up in places like the Salford Museum and Art Gallery, the Edinburgh Film Festival and the Edinburgh Museum of Childhood. They've even ended up on P&O ferries!

Jonathan's Star Wars machine is regularly on display at sci-fi conventions

RG: Tell us what happened in Rhyl – were the owners happy to sell you the machines?

JT: They were perfectly happy to sell them. A guy in one arcade was a bit coy about how much he wanted for the machines, but to be honest with you they were going to throw them away because many of the machines were in need of repair and the owner wasn't prepared to pay. So we did a deal and I bought 12 cabinets.

RG: What do you say to people who criticise dealers for buying up old machines?

JT: Well as I've said, in the case of Rhyl, the arcade owner was about to throw the machines out anyway. Remember, we are not in the 80s anymore. Machines that would have once made money in the arcade don't make any money now. The owners are more interested in OutRun 2 and Time Crisis 3. The people who are interested in the old machines are the thirty-somethings who played the games in their youth. But the thing is, your average arcade collector wants to get something for £50 to £100. This is possible, but you'll need to spend a lot of money doing it up, and a lot of people haven't got that kind of capital readily available. Also, many owners don't want to mess around selling single cabinets – they want to sell in bulk, and again, many collectors can't afford to buy in this way.

RG: So what will happen to the machines you bought from Rhyl?

JT: I'm not a hard, fast seller trying to make a quick profit. What I like to do is recycle the machines by putting them back out in retro bars and other public places, so those machines will be available to fans. In fact, some of the machines from Rhyl may very well end up at next year's Classic Gaming Expo.

We'd like to hear your thoughts on what Alan Jacobs and Jonathan Thompson have said. Please email your views, along with any arcades you think we should highlight in future updates, to **arcadehunt@retrogamer.net**

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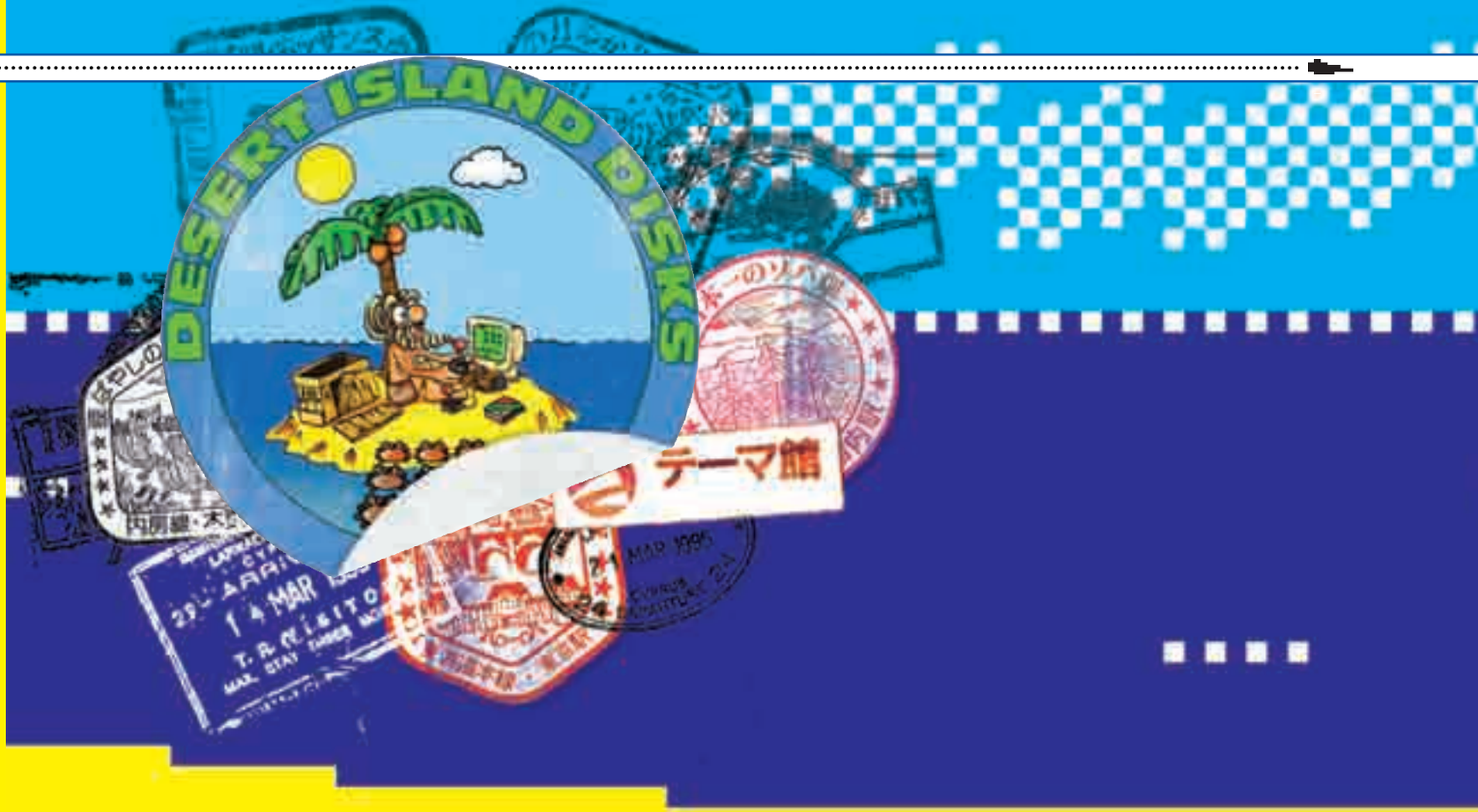


>Desert Island Disks

Another month, another castaway. Paul Drury chats with Jason Moore, proprietor of the Retrogames online store, editor of the Retrogames fanzine, and collector of all things retro

>WHO?

Jason Moore, aka Retrobloke, pretending to be artwork from Deus Ex Machina

Jason Moore is just like us really. He grew up in the seventies and was first mesmerised by a Breakout clone in his uncle's bar in Italy aged six. Soon there was a Binatone TV game in his bedroom and he was playing Pong until it was replaced by a ZX81, soon followed by a Spectrum and Commodore 64. School days involved swapping games, taping games and dreaming of writing games. "It was pretty much all I did. My mum recalls she didn't see me at all one summer holiday. I spent it all in my bedroom."

Jason's self-imposed imprisonment produced some tangible results – notably Splash the Cash, a management strategy title which, in a textbook case of art imitating life, involved copying games and selling them to your mates. The young Jason enthusiastically sent the game off to software houses. "I got some great rejection letters."

So yes, Jason Moore is pretty much like many of us. Except now he owns every console ever released. "Well, I think I do. Those I know of – there's probably loads out there I haven't heard of. Yet." His collection covers over 100 different formats, and then there are the 500-odd handhelds and tabletop games, but he's more than just an avid collector. He's been running a mail order retro games business for nearly a decade, and has been writing and publishing a retro fanzine for as long. His full-time job is operating retrogames.co.uk, which receives a mind-googling one million hits a month. Replying to the daily tally of 300-400 emails and sending out 300 packages every week is going to occupy most of anyone's waking hours, but you get the impression that even without the workload, videogames would still be Jason's all-consuming passion. As the cliché goes: it's more than a game, it's a way of life.

Whilst Jason now makes his living selling games, he's honest enough to admit he spent much of his youth pirating them. During the ST and Amiga years at the end of the eighties, he was part of a cracking and demo crew (ASG), who produced the Robocop 3 demo and pulled off something of a coup when they convinced weekly magazine Games X they had inside information on a sequel to the biggest game of the moment. "We made a spoof Kick Off 3 demo, which was a slideshow of imaginary features of the game and pictures I'd concocted with Deluxe Paint. We had a groovy soundtrack playing and some stuff about how this had been leaked from Anco. They totally fell for it and put it in the mag."

Taking stock

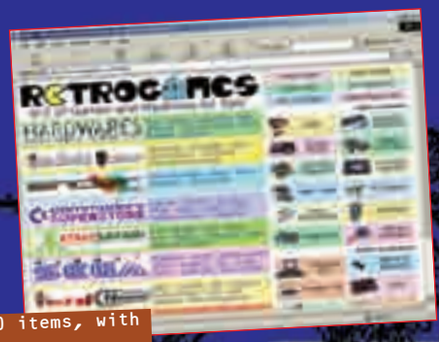
But showing off flashy programming techniques doesn't pay the rent. In 1994, Jason was working in an accounts office and frequenting the increasing number of car boot sales springing up around London at the weekends. "Things were so abundant back then. I picked up half a dozen Vectrexs that year, a couple with the vinyl carry case. I had so many great finds. A Japanese Famicom with a Disk Drive for £3, a boxed Epoch Pocket Game Computer for a tenner. There can't have been more than five of them in the country and it just turned up. The bloke thought it was a calculator. I even remember passing up the two Game & Watch Super Colours, Spitball Sparky and Crab Grab for 50p each because they didn't have battery covers." Jason pauses, as if still traumatised by the horror, perhaps worsened by the fact the days of finding some great rarity at a car boot is long gone. "It's cut-throat now. Everyone's wised up. Apparently Gamestation has a team of people who go round boot sales with Walkie Talkies on a Sunday morning picking up everything." Perhaps the listing of car boot sales in Retro Gamer, as suggested on the forum, may be rather irrelevant in these days of organised buying.

If boot sales helped kick-start the retro scene by providing cheap and plentiful gaming goodies for collectors, what was lacking was any kind of information on this emerging occupation. "There was nothing written about collecting games – no archive of what was out there to buy or of people who wanted to swap stuff, or who just wanted to know what other people thought about these old games."

Confident that there was a groundswell of enthusiasts who shared his passion, Jason started to put together a fanzine. It was an arduous task, as without a PC, he had to work on the project in his lunch hours. After eight months, the first issue was ready. A single issue – the plan was to sneakily photocopy more at the office if anyone responded to the two adverts placed in Edge and C&VG. "I wanted to see if I could provoke a reaction. And I did – a huge reaction." Two hundred copies were sold in the first week. It was a positive start and suitably encouraged, Jason quit his job to devote himself exclusively to the retro cause.

The fanzine – Retrogames – grew steadily, reaching an impressive circulation of 1,500 by 1997. The early days of photocopying and leaving gaps in the text to glue in pictures (eerily recalling early issues of Crash and Zzap.64) gave way to

Retrogames' design has certainly evolved. Compare the very first issue with the recent issue 23



The Retrogames online shop holds around 10,000 items, with new stock arriving all the time

increasingly high production values, as seen in the latest issue published in August 2004. He admits that there's no money in producing a fanzine, but having written for Edge, PC Zone and a regular Retroworld feature in N64 magazine, it does mean you retain complete editorial control. Plus, it's a useful outlet when you make a major discovery. "I still get a bit of a thrill at showing off. When people read the latest issue and say 'Bloody hell, I didn't know that' – there's always a bit of one-upmanship in games collecting."

Which reminds us, didn't he once have an exclusive in the fanzine on the uber-rare Vectrex game, Mail Plane? Jason grimaces: "It's a horrible story. I got a message from a bloke who said his uncle had worked on the Vectrex and he'd got a game called Mail Plane and was I interested in it for the mag. Amazing – he just sends it me through the post. I keep it for a while and do a piece for Retrogames, but as it's 1996, I've only got a Polaroid camera to take any pics. I tell him I like it and want to keep it, and he says I can buy it for £300 – an absolute bargain, but at the time it seemed a lot, so I sent it back. A few months later I had the cash and tried to contact him, but he never replied. A couple of years ago, it turned up on bulletin boards that I had this rare game and I got lots of people asking about it. I explained I hadn't got it anymore and got loads of 'You're talking rubbish'. All I had was a handful of Polaroids..."

Mail Plane is just one of several exclusives that have appeared in Retrogames

It's a painful story on so many levels, particularly as if another copy of Mail Plane ever surfaces, its price will be measured in the thousands of pounds. 'Discovering' these incredibly rare items has rather become Jason's forte, having sourced a number of sealed copies of the never-released Virtual Boy title Virtual Lab from a contact in Japan ("I bought 10 copies for £50 and sold them all in a week for £100. I saw one go recently on eBay for £1,200. Another sad story.") and only this year his fanzine carried news of a Virtual Boy prototype, Faceball. "I'm hoping for another in a year or so, which might be Dragon Hopper..."

Talking shop

The fanzine clearly remains a labour of love for Jason and he freely admits that now the Internet (and indeed the magazine you're reading) exists, its value as a resource has decreased, but we shouldn't forget how vital it was in the early days of the retro scene. It provided a focus for collectors and enthusiasts, and as the mail order business grew, it felt logical to open a shop so all the stock was at hand.

"I was kind of pushed into it by CEX opening a retro section at around the same time. I thought 'Shit, if I'm supposed to be the Retro King of London, I better do something'. And it was good for a while. Some brilliant people came down. You know what gamers can be like – you start talking for hours and don't close the shop till eight at night. People walked into the shop seeing all the games they'd played as a kid, and they were overawed."

The shop traded from 1998 till 2002, London's extortionate business rates finally leading to its demise, but having gone online in a major way since then, Jason hasn't looked back. We wonder if he's faced with the daily dilemma of what to sell and what to keep?

"You do start being fussy. I've just put a Gakken TV Boy up for sale, but that's only because I've found one with a slightly better box. I admit my collection comes first, but as that gets better, so will the stock. It's a great way of getting rid of duplicates."

Getting rid of things is clearly an issue for Jason – he confesses his garden shed has 10 boxes full of non-working Dragons, TI-99s and the like which he can't bring himself to throw away – as is the problem of being a devoted gamer and collector. He acknowledges the inherent ridiculousness of, for example, owning the complete set of 20 Famicom GBA releases and not being able to bring himself to break the seals, even though he's desperate to play them. "It gets sadder than that. I've got a special display case for them issued only in Japan that's really hard to get, which costs £200, and it's sealed. So I'd have to break the seal to put them in it... It's a dilemma all collectors have to face."

We start to wonder if Jason's tale is a cautionary one, something about 'You always kill the thing you love', but what isn't in question is his undying passion for the beautiful games themselves. "I can see two factions in the retro collecting scene. There are those people who want to have everything they had as a kid, plus everything they couldn't afford back then, all the things mum refused to buy them. And then you've got the other faction, those who want to play the games. The games I sell most of are the great games. I can sell 10 Quazatrons for every one Mazogs, and if I had the stock, I could sell Ultimate games very quickly. And it's this faction that's winning." RG*

Gravity

Mattel

There's a bit of a story behind this LED handheld for me. It was the first electronic game I ever had, and was a Christmas gift from my parents way back in 1981.

The game, as the title would suggest, is about the effect of gravity on LED lights. There are three games in total, the first being Catch. In this there are three rows of lights, and they drip down the screen like a leaky tap. You have to press the corresponding button below each row to prevent the lights reaching the bottom. Game two is Juggle – this time three balls sit at the bottom of the screen, and you bounce them up into the air with the three buttons. The third game is a docking game, and relies on you having good enough reactions to stop a star of LED lights around a single light as they scroll ever faster down the screen.

At the age of 10 I was blown away by the game. I played it night and day, forever hassling my parents for new batteries. By the time I got to my early teens I'd started taking everything apart and making new things from the lights and wires. Gravity fell victim to my technological cull. It wasn't until I started getting back into collecting handhelds and tabletops in my early twenties that I realised I needed it back in my collection.

A huge search ensued, and around six or seven years ago I finally picked one up in the US on eBay, for a staggering $400! That's how desperate I'd become. It's still an incredible game though, and there's nothing else quite like it. It will no doubt remain my favourite handheld game of all time.

Highway Encounter

Vortex

I am a huge fan of all Costa Panayai's early work – Android 2, Cyclone, TLL, Deflektor – all classics from the Spectrum era. However, Highway encounter was a league above the rest. It borrowed heavily from Ultimate's Alien 8, not only with its isometric viewpoint, but the whole design of the graphics. The game involves directing a bunch of robots that are pushing a bomb to a target 20 screens away. Each screen has a puzzle of blocks and moving enemies, and it takes thought and speed to avoid losing members of your robot team. Some of the screens are devilishly tough, but once the art of each screen is learned, the proceeding turns get easier. This slow drip-feed of progress makes it one of the most rewarding games there is, and one of only a relatively small number which I played until I finished it. The final screen, with the aliens all crowded around the sides of the highway as the bomb heads for the mothership, is something that those who've finished the game will never forget.

Software Star

Addictive

I am a sucker for management strategy. It's something I've raved about in the magazine for years, largely because, along with the text adventure, it's something of a dead genre today. There are loads I'd like to include – Chris Sievey's the Biz, Millionaire by Incentive, Kaiser by Ariolasoft. The one I've opted for is the long-forgotten follow-up to Football Manager, Software Star by Kevin Toms. It's incredibly simple – run a software house by making multiple-choice decisions every month, then sit back and enjoy the reward as your games slowly push themselves up the charts.

Part of the enjoyment is naming your own games, and then releasing sequels in the following years. I'm sure it's random, but sequel titles do seem to generate additional sales for poorly programmed games. For some reason it's always satisfying, having five games on sale, and getting them all in the top 30, watching each hot new title taking the place of the previous one. I realise that there aren't many people out there who would rate this type of game at all...

Dungeon Master

FTL Games

Surely this game is in everybody's list. It changed my entire view of gaming, and remains the only game I've ever completed on two different formats (the ST and the Amiga).

In comparison with today's first-person adventures it may seem basic, plodding around mazes hunting for switches and working out puzzles, all while fighting off a hoard of bizarre creatures. It's responsible for so many role-playing firsts, like the language used to make spells, and the way your team could be turned and ordered in battle situations, and their need for food, water and preferably light. Then there's the point-and-click manipulation of all their items and clothing, and the vast array of amazing objects to be found.

Dungeon Master is like a blueprint for game design. It never gets boring, or so confusing you don't want to continue (unlike its sequel), and the sense of satisfaction at solving some of the harder puzzles is incredibly uplifting. In fact I can think of no other game as internally complicated yet so easy to navigate and understand by the player. Whether it's being chased around in the dark by a hoard of mummies after your torches have all gone out, or slamming down a portcullis onto the head of a poisonous screamer, it's the kind of game old players long to tell spooky stories about.

Rampart

Atari

If I'm on a desert island, then I'll need the arcade version of this, but I'll also need someone to play against, preferably female! For me this remains the greatest puzzle game ever devised, cleverly mixing Tetris with Missile Command. You must build your castle in the given time limit, then surround one of the turrets on the map with a solid wall to stay in the game. Then you are allocated guns depending on the amount of space you have managed to box in around your turret. Place your guns then prepare for the war phase, aiming your gun sight at enemy ships, castles and walls. Then it goes around again with a rebuilding phase.

The holes knocked out of your walls continually get harder to fill with the complicated Tetris shapes you are given. If an enemy boat reaches the shore, the troops will spill onto your land, and do their best to destroy the turrets. Once they are all gone, or you fail to build a complete wall around one, it's game over.

It all sounds more complicated than it is, as it's an incredibly well-balanced game, and will while away hours without you even noticing. The perfect thing for a desert island then, while I'm waiting for my seagull to cook over a candle.

Forbidden Forest

Cosmi

Cosmi's Aztec Challenge was one of the first games to woo me away from my Spectrum back in the early eighties. Somehow there was a lot of atmosphere trapped inside the game, God knows how they put it in there, because on the face of it, it was a frustrating and repetitive game. It certainly paled into insignificance compared to the atmosphere evoked by Cosmi's next opus, Forbidden Forest.

Set in a forest (strangely), you play an archer who has to kill the creatures that live there before they kill him. These range from giant spiders and bouncing frogs through to evil bees and fire-breathing dragons. After each wave of nasties you do a little dance to celebrate your achievements, and you'll crave to hear that dancing tune again on later levels when it starts getting tough. The last level features the Ghost Demogorgon, who is only visible when lightning strikes. Surely it's the most terrifying final level of the whole 8-bit era. The amazing thing is, for me at least, the game is still as terrifying today.

Oids

FTL Games

Apart from making the best ever RPG, FTL also made one of the greatest shooters of all time too. Oids borrows heavily from Gravitar and Thrust, but pushes the ideas further, mixing in a bit of Sega's Choplifter to boot. You have to rescue the little Oids from their planet hideouts, and airlift them to safety in your mothership. This involves carefully taking out multiple gun emplacements, fighting off enemy ships, and navigating the landscape with manual dexterity you never thought was possible with a joystick.

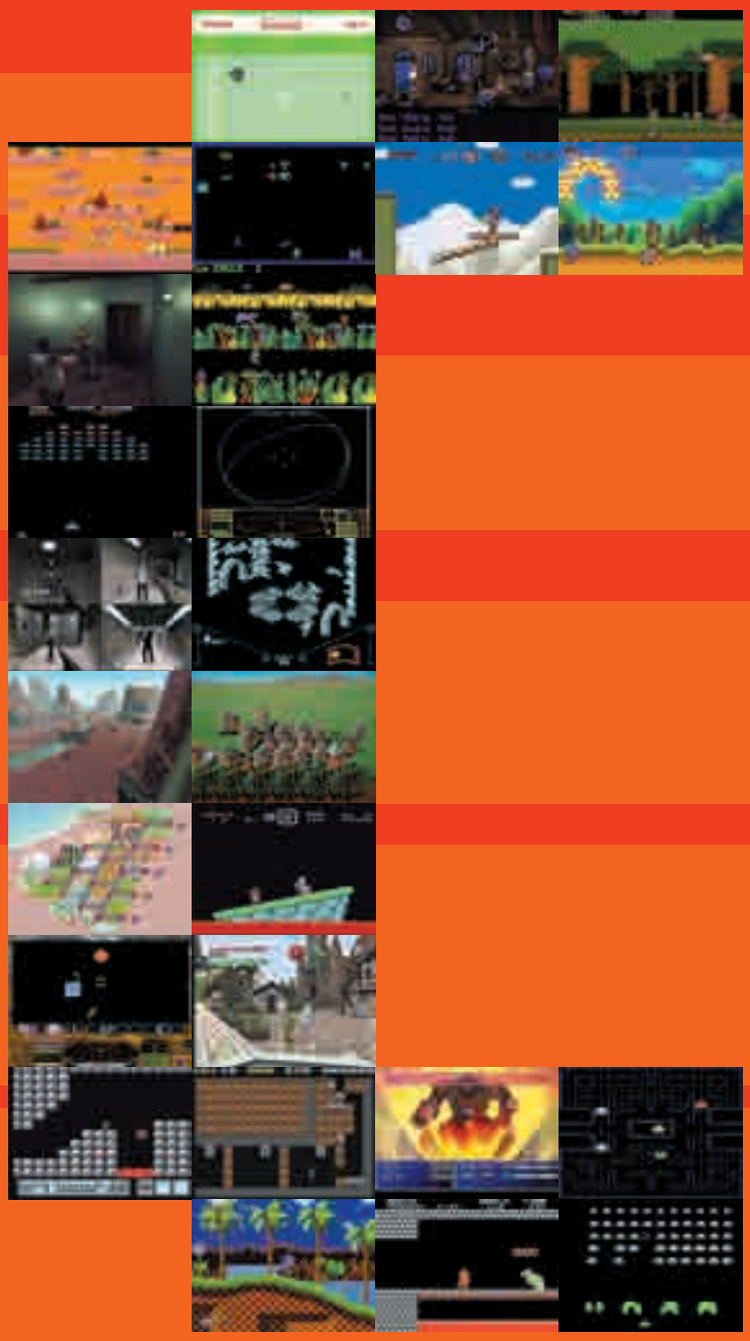
One of the things which makes Oids so special is the tiny graphics, which maintain incredible detail thanks to clever animation. Whether it's the little guys waving on the planet surface (or burning when you accidentally shoot them), it somehow endears them to you, and makes them worth rescuing. What really works though is the skill level. To many, this is a tough game, and when you can complete a later level in a single turn, then watch your friend smash five or so ships straight into the ground, you can't help but feel smug. Another reason for including it in my list is the level designer. How could you ever get bored when you can make your own dastardly levels to get blown up in!

Zelda: Ocarina of Time

Nintendo

My original list was about 30 games, and to hone it down has been really tough. I'm still not sure I've got the right selection – no Paperboy, no Soul Calibur or Robotron. One game I do need though is Zelda: Ocarina of time.

Hang on, that's not retro! Maybe so, but it's still one of the greatest experiences I've ever had on a games console, so its inclusion is valid. I'll be honest with you – I didn't love this game straight away, far from it. It was only when showing Ocarina of Time to a friend that they urged me to continue my game. At that point I hadn't even ventured through the forest to the rest of Hyrule. Needless to say, I did continue, and when I suddenly found myself on the open plains, the huge game map spreading out before me, I realised I'd been ignoring it for too long. Months of play ensued, and on the final day, when Gannon was finally destroyed (for then at least), I watched the end sequence with the hairs on the back of my neck standing on end. Without doubt the most emotional experience I've ever had with a videogame. There are probably not many people reading this who haven't also experienced the end of the game, and it somehow makes you proud to be a gamer to think we've all shared this huge journey. I'm welling up! Let's all join a commune and wear our pants on the outside of our trousers...



The top 100 games as voted for by you ‹part two, 50 to 1›

The suspense is over. We can reveal what you, the Retro Gamer readers, have voted your favourite 50 games. Which titles will be in the top 10? Which game will be number one? You are about to find out...

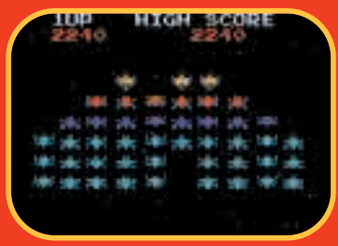
50 Gunstar Heroes 50

Treasure, 1994

Treasure's Megadrive magnum opus obviously impressed you as much as it impressed us. The fusion of non-stop blasting, epic boss battles, and more technical trickery than you could shake a SNES mode 7 chip at, was enough to melt your eyeballs and fry your brain. The game was just so damn entertaining and possessed some of the most original ideas we've ever seen. Black's dice maze/board game of doom had to be one of the major highlights, as does the excellent weapon combination system that let you meld two different weapons to create a totally new way of razing your foes to the ground. Graphically it was a pinnacle for the Megadrive.

49 Galaxian 49

Namco, 1979



Galaxian is something of a surprise entry here, as we would have put bets on this coming higher in the top 100. This was the first title ever released to display all of its visuals in 100% true RGB colour. However, the game itself was a fairly formulaic clone of Space Invaders, albeit with more fluidly moving baddies. But this was no bad thing, and Galaxian didn't fail to deliver some truly addictive and engrossing blasting. Wave after wave of alien scum could be sent packing, and there was the always-present chance of bull's-eyeing the mothership for that score-boosting bonus. A classic blaster that falls just short of the mighty Space Invaders.

48 Street Fighter II Turbo 48

Capcom, 1992

The ongoing scraps of Capcom's finest have always attracted the attention of hardcore fight fans, despite a shameless series of sequels and updates. Still, SFII Turbo is considered by some to be the best one-on-one 2D fighter ever, sporting a range of subtle tweaks to the original title. Not only did the game boast a much higher speed (hence the Turbo moniker), but for the first time (at least legitimately) players could fight as the bosses Sagat, Balrog, Vega and the evil Nazi-esque M. Bison. Some of the fighters were tweaked, balancing the game out, and the whole kit and caboodle oozed class. But was it the best SF around?

47 Dizzy 47

Codemasters, 1987

Of all the 8-bit characters, Dizzy was perhaps the most popular. He was certainly the most enduring, as this original was followed by SIX SEQUELS, plus numerous spin-offs. He even appeared on consoles later on in his eventful life. All of his adventures were very similar, and indeed that was always the appeal. For a few quid you'd be guaranteed a colourful mix of platforming action and puzzle-solving gameplay. The first game was perhaps more action-orientated than the games that followed, but all of the familiar hallmarks originated here. The ultimate cartoon adventure? Maybe not, but it was still very enjoyable.

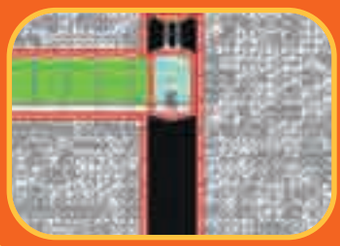
46 Sabre Wulf 46

Ultimate, 1984

The original Sabre Wulf was a fine, flip-screen maze game, similar in style to Ultimate's earlier Atic Atac although set in a dense jungle. Armed with only a small sword, Sabreman had to defeat zoo loads of animals in his quest to find an ancient amulet. This could then be used to banish the dreaded Sabre Wulf. Besides its grand packaging and almost criminal price tag of £9.95, the game is best remembered for being super-colourful and super-difficult. Did anyone ever find all four pieces of the amulet? Sabreman went on to star in a series of games, and while this original is overshadowed by the amazing Knight Lore, it's still an early Ultimate classic.

45 Impossible Mission 45

Epyx, 1984



Set in a world of espionage, evil robots and nuclear blackmail this multi-screened platformer is one of Epyx's true classics and a noted favourite of C64 fans. Playing as Agent 4125, your task was to infiltrate Dr Atombender's underground lair in a daring bid to stop his planned nuclear assault and save the world! Yes, it sounds like a throwaway 007 script, but Impossible Mission was far superior to any official James Bond licence that graced 8-bit machines. With silky-smooth animation, tricky puzzle elements and its famous sampled speech, Impossible Mission stands out as one of the finest puzzle platformers ever.

44 OutRun 44

Sega, 1986

Probably the only racing game to convince the player they could actually smell the ocean spray, whilst negotiating what was definitely a new feature of racing games at the time – undulating roads and scenery. Quite simply, OutRun left rival racers in the dust because of its near-perfect handling, killer tunes (you could choose which tune to play at the beginning of each race) and dreamy graphics. If we were to pick faults with it, we'd say that the game was perhaps a little too difficult for its own good, with just a single mistake often ending any hopes of reaching the next checkpoint. Sega followed up this classic with two more notable games, Afterburner and the sequel/update Turbo OutRun, but they couldn't quite match the roadside majesty and sheer pedal-to-the metal playability of this strangely addictive cross-county racer. Amazing stuff.

43 Speedball II: Brutal Deluxe 43

Bitmap Brothers, 1991

The Bitmap Brothers had several 16-bit hits, yet this sports sequel was its greatest. Set around the fictional futuristic sport of speedball, the aim of the game was to take your lowly Brutal Deluxe team to the top. The sport itself was fast, intense, violent and fun. You had to score points by any means necessary, whether that was via the goals or by using the various gadgets that surrounded the court. The Bitmaps' trademark metallic graphics depicted the game's futuristic tone well, and sound played a key part, with crunching tackles, clanging balls and the infamous "Ice cream! Ice cream!" salesperson during the interval. Beautifully violent.

42 Sonic the Hedgehog 2 42

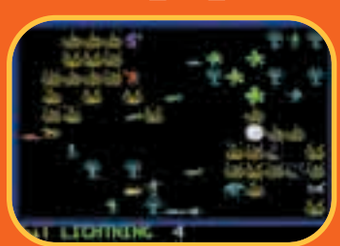
Sega, 1992

It may not be the original, but many consider this to be the best Sonic game ever. Using the original game as its test run, Sonic 2 not only improved upon the graphics, but added more abilities, a new character in the form of Tails, much better level design and even a two-player mode. Basically, it took all the good things from the first game and multiplied them 10 times. The new zones were great and some of the boss battles were excellent, although admittedly easy. Who could forget fighting metal Sonic or Robotnik's giant robot suit in the Death Egg? Sonic came at a time when Sega ruled the home console market, and it showed. Classic.

41 Chaos 41

Games Workshop, 1985

Although simplistic in style – it had a black screen and tiny little monsters – in Chaos Julian Gollop created a game that can still hold its own against modern strategy titles. With up to eight wizards engaging in all-out war against each other, and hundreds of ways of altering the course of the game in your favour, Chaos has deservedly made it into the top 50 of our chart (just out of interest, Chaos finished third in the dedicated Spectrum chart). Chaos wasn't an easy game to get into, but once you had learnt the strengths and weaknesses of the 50 different animated spells at your disposal, games could last for hours.



40 Skool Daze

Microsphere, 1985

It could hardly fail, could it? A game that offered closet ruffians the chance to misbehave in a way they couldn't at school. As Eric (or whatever name you chose to call him), you had to salvage your rubbish school report from the headmaster's office and polish it up before your parents clapped eyes on it. This objective inevitably took second fiddle to general trouble-making, which included letting off stink bombs, firing catapults and punching wimps in the face. We found Eric's later adventures in Back to Skool more fun, but the original still has as much childish charm as it did back in the day.

40

39 Ghosts 'n' Goblins

Capcom, 1985

Arise, Sir Arthur! Yes, another Capcom classic finds its way into the top 100. Playing as Sir Arthur you had to fight through a demon-infested world to rescue your fair maiden in distress. Easily one of the most difficult titles of its time, this was a solid challenge from the off. Arthur had possibly the flimsiest armour ever – it succumbed to just one hit and left our hero fighting evil in nothing but his pants – and the enemy attacks were relentless. Ghosts 'n' Goblins was a true 'twitch' game that required both lightening-fast reflexes and a great deal of skill to win. As hard as it was though, the game was entertaining and mastering it was a real triumph.

39

38 Half-Life

Valve, 1998

Little can be said about Half-Life that hasn't been said a thousand times over already. The worst day at work in Gordon Freeman's life was the basis for a legendary PC classic that has found its way onto all the major formats and is due to return with a bang very soon. Half-Life has already secured itself a place in the history books as the single most popular FPS online ever (thanks to the Counter-Strike add-on) that boasts one hell of an epic single-player mission. The game not only possessed a truly amazing graphics engine, but played more like a Hollywood movie than a game, thanks to the scripted events and plot-twisting story. Gaming gold.

38

37 Resident Evil

Capcom, 1996

Capcom's original zombie classic may have been diluted of late due to the endless series of sequels and spin-offs, but the original remains one of the finest horror-themed games ever. OK, so the gameplay was strongly influenced by the Alone in the Dark series, but Resident Evil was infinitely better than any of Infogrames' daft detective games. Playing as either a male or female protagonist, you had to venture inside a creepy old mansion on the outskirts of the doomed Racoon City. Zombies, rabid dogs, giant spiders and worse lurked around every corner, but your main problem was the many locked doors that prevented your progress. Opening them involved solving a series of tricky puzzles that weren't always obvious. Full of shocks, surprises and perfectly poor B-movie dialogue, Resident Evil is the gaming equivalent of Night of the Living Dead.

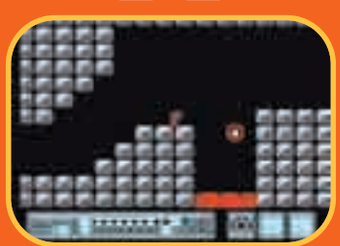
37

36 Super Mario Bros. 3

Nintendo, 1988

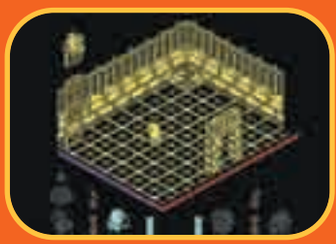
Ohhh, a tough one! We guarantee that a whole army of Mario fans will be spitting into these very pages after glancing both here and at the number two spot. Mario 3 is one of the most fanatically praised Super Mario games of all, and is in many people's minds the best Mario game ever. But you have voted and the NES outing enters the top 100 here. That said, there's no doubt that Mario 3 is a very fine game indeed, boasting arguably the best level design of the whole series. Sporting a new Racoon Tail power-up, a frog suit (!) and returning to the original Mario formula, this was an instant hit and is one of the biggest-selling videogames of all time.

36



35 Head Over Heels

Ocean, 1987



Jon Ritman and Bernie Drummond's follow-up to Batman was in many ways a better game. Free from the restrictions of a licence, Head Over Heels was completely original and completely brilliant. Switching control between Head (who could jump high) and Heels (who could run fast), your first job was to join the two characters up. You could then use their shared skills to escape Castle Blacktooth and overthrow an evil emperor. Isometric 3D was used to great effect, perhaps better than in any other game, and almost every screen posed a different challenge to our fearless duo. It was also massive, with four different planets to explore.

34 Dungeon Master

FTL, 1989

OK, so it might not have been the first game to feature a first-person view, but Dungeon Master was one of the most popular. In the game you controlled a four-man team of gallant adventurers who had to enter a dangerous dungeon inhabited by all sorts of deadly creatures, with the aim of killing the Dungeon Master. On the way you could find better weapons, armour and other supplies, while all the time descending deeper into the darkness. Riddles, puzzles and object management were the order of the day, as were character evolution and advancement. It might not be the greatest-looking title ever, but the gameplay is still good today.

33 The Secret of Monkey Island

Lucasfilm Games, 1990

The gaming world is surely a better place thanks to the existence of pirate Guybrush Threepwood. And we're happier than a Grog-swilling seadog that you think his first adventure is the best of the bunch. You took control of Guybrush and had to save Governor Marley from the evil clutches of ghost pirate Le Chuck. First though, you had to become a pirate, enlist a crew and make the perilous journey to the fabled Monkey Island. Games and comedy rarely go together well, yet Monkey Island was awash with comic characters, witty one-liners and funny sight gags. The game also featured some brilliantly clever puzzles and an unforgettable soundtrack.

32 R-Type

Irem, 1987

Another milestone in the evolution of arcade shoot-em-ups, R-Type added elements of previously unheard of strategy to what had become a fairly stagnant genre – not in terms of graphical bells and whistles, but the way shooters were played. R-Type ensured that this popular genre would never be the same again, by allowing players to fire off or strategically position at the front or rear of the ship a range of power orbs and special detachable weapons. Add to this a range of disgusting organic landscapes populated by some of the biggest, bile-spewing bosses ever to grace the screen, and it's easy to see why it proved so popular.

31 Boulder Dash

Exidy, 1984

Mining its way to the brink of the top 30, Boulder Dash serves up a simple concept that has been cloned and copied numerous times since its release. And despite its origins as an arcade game, it's remembered for the many home computers version it appeared on over the years. As Rockford, a greedy treasure hunter, you had to navigate your way around treasure-laden caves, strategically grabbing the booty while avoiding dislodged boulders. The gameplay was basic, but soon became very challenging as the difficulty level increased. The number of remakes is testament to the game's continuing popularity.

30 Rainbow Islands 30

Taito, 1987

Featuring the humanoid incarnations of the bubble-blowing dinosaurs Bub and Bob, this might not be everyone's favourite outing of the series, but Rainbow Islands still racked up the votes. Changing the screen-by-screen formula of the original game, Rainbow Islands not only transformed Bub and Bob into geezers throwing rainbows around with gay abandon, but it also introduced vertically scrolling levels. By using your rainbows as both weapons (by encasing enemies) and as climbing aids, you had to make it to the top of each level and the goal. Rainbow Islands was another very simple idea that just appealed across the board.

29 Civilisation 29

MicroProse, 1991

Sid Meier's masterpiece has stood the test of time like no other, and despite receiving more than a few makeovers over the past few years, it's the original that has found a place in the more serious gamer's heart. Taking control of your very own nation, you started off with a handful of settlers and the single goal of developing your nation into a world power, complete with the technology, trade and arsenal that goes with being a super state. The game was massive and it didn't matter how many times you played it, you could always play it again and enjoy a totally new experience. It's amazing to think that this game is almost 15 years old!

28 Chuckie Egg 28

A'n'F, 1983

When it comes to memorable 8-bit characters, poor Hen House Harry doesn't score too highly. Harry was of diminutive size and had a bizarre pot belly, so it was hardly surprising the killer chickens wanted to peck him to death. In the case of Chuckie Egg, the game itself was surely the star vehicle and poor Harry was just along for the ride. This fast and frantic platformer served to test both your precision-jumping skills and your patience in equal measure. Chuckie Egg was also famously difficult, with a seemingly never-ending loop of levels. Harry returned in Chuckie Egg 2 shortly after, but that somewhat bloated sequel has failed to make the chart.

27 Street Fighter II 27

Capcom, 1991

The phrase 'original and best' is used a lot in the retro field, and when it comes to Capcom's cash cow it would seem that this is certainly the case. The original Street Fighter II has got your vote as being the best in the series, and despite the fact that it offered only eight world warriors to choose from and boasted none of the added extras of later versions, it's the pure combat and originality that has won it this position in the Top 100. This isn't surprising though when you think about it, as this one title has had such a humongous impact on gaming, and without it we'd never have seen today's fighters.

26 GoldenEye 26

Rare, 1997

The game that sold a million N64s. Rare's 007 classic is simply without equal in many people's minds. Not only was it the first FPS that actually 'worked' on a console, without being a cumbersome, uncontrollable mess, it was also a superb game in its own right. Based on the only really decent Brosnan flick, this espionage-filled FPS looked amazing, packed in a ton of weapons and gadgetry, and had controls that made even the awfully designed N64 pad feel right. The single-player mode was a joy to behold and the multiplayer was enough reason to go and buy three more controllers. GoldenEye is easily the best Bond game to date.

25 Wizball

Ocean, 1987

Wizball was a completely original and unique shoot-em-up on its release, and there has been very little like it since. Sensible Software really came up with the goods with this game and provided smooth parallax scrolling, colourful graphics and some excellent tunes to accompany the action. Starting off as a bouncing ball, your task was to collect the necessary upgrades to allow you to move more freely. Your cat (Nifta) also had to collect colour droplets, get back to your lab and restore the level to its former glory. Wizball appeared on all 8-bit formats, but it's the superb C64 version that is surely responsible for the game's lofty chart position.

25

24 Super Mario Bros.

Nintendo, 1985

Well, well, well. With the third title languishing at 36, it's surprising to see the first instalment steam on in past its later incarnation. The original Super Mario Bros. may have been the most basic of the lot, but it's still an all-time classic, if only because of the legacy it helped create. This was the first platform outing for the famous plumbers, and it introduced us to Bowser, our hero's penchant for scoffing mushrooms and the basic Mario formula that would continue throughout the years. Players also stomped on Koopas, collected coins, and could find hidden pipes – all elements that would grow and grow as the series prospered.

24

23 Paradroid

Graftgold, 1985

This has to be one of the most oddly addictive games ever made. The backstory was that a disaster had sent all the druids on your ship mental. You therefore had to use an 'influence device' to take control of robots in order to do battle with enemies and advance your own power in the process. The catch? You had to pick your fights well and avoid biting off more than you could chew. By taking on 'bots close to your level you could increase in level, becoming a more powerful threat, able to control more dangerous droids. This simple and somewhat RPG-like dynamic was enough to absorb players for hours on end.

23

22 Knight Lore

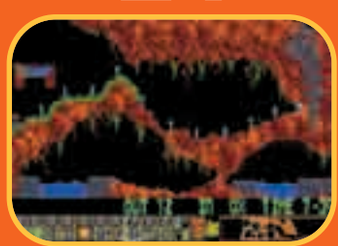
Ultimate, 1984

Knightlore, Sabreman's third adventure, was the first isometric adventure ever produced, and it featured fantastic 3D graphics and superb character animation. It looked so damn good that competitors fell over themselves to try and mimic its superb style. It was later ported to other 8-bit machines, but on release this was the one game that really showed off the capabilities of the humble Spectrum. The story followed on from Underwurlde and was similarly straightforward. Sabreman had suffered a werewolf's bite and the only person who could lift the curse was an old wizard who lived in Knightlore castle. You had to search the castle for six special ingredients, which the wizard would combine to rid Sabreman of the curse. The game was more sedate than its prequels, as more thought was required than skill. Overall, this was the best of all Ultimate's games.

22

21 Lemmings

Psygnosis, 1991



Perhaps Psygniosis' finest hour and a turning point in the puzzle genre. Who'd have thought that guiding a bunch of pixelated critters to safety would be so much fun? Lemmings was a truly inspired idea, and thanks to flawless presentation and implementation the game was a massive success. By carefully using a range of tools and empowering individual lemmings with special skills, you had to make sure that these suicidal hairballs made it to the level exit safely and didn't characteristically throw themselves to their doom. Lemmings was perfectly balanced – it started off easy and then becoming devilishly challenging.

21

20 Frontier: Elite II

GameTek, 1993

Alright, so we know you impatient urchins have already glanced at the number one spot, and know that this sequel's daddy is indeed the, er, daddy, but the second coming of the space-trading masterpiece is also worthy of note. More so than its predecessor, Frontier was a game you either loved or hated. Some found it far too dull and were unable to get to grips with it, while fans just couldn't get enough. This was lucky really as Frontier was staggeringly huge on a mind-bending scale. The game universe contained millions of planets, and coupled with the 'do what you like' gameplay, this was a game that could take over your entire existence.

19 Tomb Raider

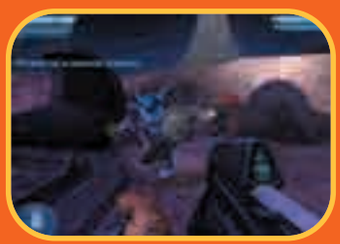
Eidos, 1996

Some may mock the inclusion of Tomb Raider in this chart, but the immense popularity of Lara Croft cannot be ignored. The first couple of games in the series are excellent, with the original being the most memorable, and not just because it introduced us to Ms Croft. Tomb Raider was perhaps one the first games to effectively generate atmosphere via its locations. The idea of exploring long-abandoned tombs, deep underground, was exhilarating, and the strings that occasionally graced the soundtrack were enough to raise the hairs on the back of your neck. The game just grabbed you from the opening movie.

18 Halo

Microsoft, 2001

Aside from GTA Vice City, Halo is the most recently produced game in the top 100. And for good reason, as it's superb. The *only* reason to own an Xbox for the console's first year, Halo was originally destined for the PC alone, until Microsoft stepped in and nabbed it for its own console. Halo might only be an FPS, but there are very few titles in this genre that can match the sheer quality and silky smooth gameplay on offer. Controlling the Master Chief, you had to battle an alien race intent on destroying humanity. Incorporating vehicles, awesome AI and some of the best multiplayer action ever seen, this is an essential game in every sense.



17 Super Mario 64

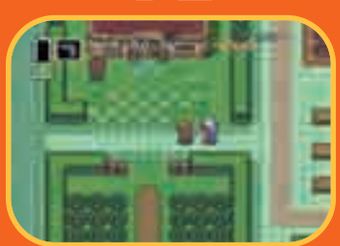
Nintendo, 1996

Along with GoldenEye and Zelda, Mario's N64 outing is the highest reaching of the console's top three. As this was his first of the series to appear in glorious 3D, it's impressive that Nintendo managed to get everything so right on the first go. Despite the massive changes needed to transfer the flagship hero to 3D, the game still bore all of the Mario hallmarks, right down to the same visual look, story and enemies that had graced the 2D games. Controlling Mario was admittedly a little tricky at first, but thanks to a slick system, things soon became second nature and Mario 64 quickly became as enjoyable as any previous Mario game.

16 Zelda: A Link to the Past

Nintendo, 1991

Another of Nintendo's big guns, the adventures of the green-suited hero are without question some of the finest ever created. Even the Mario games can't match the Zelda series' demonstration of Nintendo's ability to craft flawless gameplay and immersive worlds, and no fault can be found with this SNES classic. Possibly the greatest game to ever grace the 16-bit platform, A Link to the Past is the archetypal top-down RPG that so many others have tried to emulate over the years. The mixture of real-time combat, exploration, puzzles and spotless presentation is a feat that any developer would kill to achieve.



15 Grand Theft Auto: Vice City 15

Rockstar Games, 2002

Who'd have thought that stealing cars and committing crimes could be so much fun? Rockstar's chart-smashing crime sim is frighteningly good in practically every way. Set in the 1980s, in a city clearly based on Miami, you play ex-con Tommy Vercetti. After a drug deal goes wrong, it's up to you to get the money back (owed to a Sicilian mob) and then take over the city for some good old-fashioned payback. The game looks great, handles like a dream (when you were in vehicles, at least) and has possibly the best soundtrack ever. What's more, it features a great C64-inspired loading screen that takes you right back to 1985. A modern classic.

14 Tetris 14

Alexey Pajitnov, 1986

The word 'phenomenon' has been used to describe many games, but only a select few truly satisfy the requirements of such a title. Alexey Pajitnov's Tetris is a distinguished member of this small group. The aim was simplicity itself – make complete lines out of the falling shapes, and try and score a 'Tetris' (four complete lines). Play well and you could keep on going indefinitely, gaining a monster score. Play badly and the screen would fill up and it'd be game over. Thought of by many as the single most addictive game ever, whatever your thoughts, there's no denying its quality and the fact that it made a success out of the GameBoy.

13 Super Mario Kart 13

Nintendo, 1992

Is any game out there more fun than Mario Kart? Eight familiar characters, loads of tracks, tons of weapons. Slapping Mario and Co into tiny go-karts may have resulted in a simplified racer, but it was an enjoyable romp nonetheless. The single-player mode was fantastic, but Mario Kart really came into its own when played in multiplayer. The two-player racing mode was excellent, but nothing was better than obliterating your best mate in battle mode. With Mario Kart, not only did Nintendo manage to come up with something fresh and new for Mario and the gang, but it also created a whole new gaming genre in the kart racer.

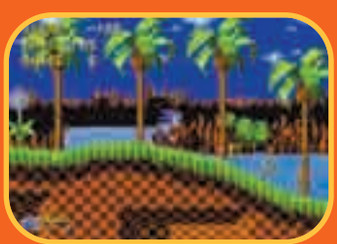
12 Bubble Bobble 12

Taito, 1986

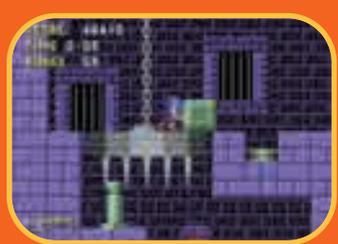
The original adventures of Bub and Bob have been very well received ever since they belched their first bubbles all those years ago. As either one of the cutesy dinosaurs, you had to clear screen after screen of increasingly challenging waves of enemies by trapping them in your bubbles and then popping them before they escaped. This straightforward game was both addictive and completely original, but Bubble Bobble was always best played with a friend as team-based play revealed some surprising depth. The game's theme tune has also gone down in history as being one of the most infectious melodies ever created.

11 Sonic the Hedgehog 11

Sega, 1991



Sega's Megadrive console was already doing quite well for itself, holding its own in the 16-bit market, when Sega realised it needed a character that would challenge the mighty Mario. The result was Sonic the Hedgehog, and a legend was born. Never before had we seen a game so fast and so impressive, and from the first loop-the-loop to the final smash on Robotnik's bonce, we were held captive in Sega's new world. Sonic was a platform masterpiece that didn't try to beat Mario at its own game, opting instead for a radically different formula. Excellent level design and a genuinely unique character made this a classic.

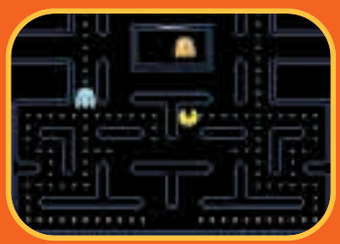


10 Pac-Man

Namco, 1980

This is surely the greatest arcade game in history. It's the Pac-Daddy. The big kahoona. The One game to rule them all. Whether you love or loathe the diminutive pill gobbler, you can't deny the staying power of Pac-Man. Put simply, it's the best-selling, most commercially successful and widely recognised videogame brand in existence. Some may argue that Ms. Pac-Man is a superior game, but for us, and you it seems, the craze in the maze began with the original idea, even though it spawned several official sequels. And don't let the simplistic nature of the game fool you – people have written entire books on how to succeed at Pac-Man.

10



09 Doom

id Software, 1993

Only a handful of games can claim that they've changed the gaming world, and Doom is perhaps the most qualified of them all. While Wolfenstein 3D was the first of the genre, it wasn't until this PC smash arrived on the beige box that the FPS became a market leader. As a hardened space marine, you fought a one-man battle against the forces of Hell as they invaded a research base on Mars and its moons. Graphically stunning back in the day and with atmosphere and playability that people had never experienced before, it wasn't long before this shareware title became a commercial juggernaut. It made shotguns and chainsaws staple gaming weapons. Some claim that Doom was the single most important factor in the PCs rise to gaming greatness. Well, it would be hard to argue otherwise – without it there'd be no Quake, for God's sake!

09

08 Sensible Soccer

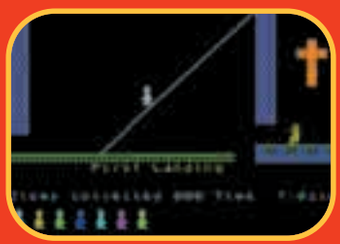
Sensible Software, 1992

Long before FIFA and ISS burst onto the scene, football was a distinctly 2D affair. That's not to say it wasn't good though, as this entry in our top 100 shows. The clear winner in the footballing battles of yesteryear, Sensible Soccer beat Kick Off to the public's favourite position, and is still voted the best football game ever by most hardened gamers. It might not have looked like it but Sensi was an amazing recreation of the beautiful game and mastering it demanded skill. Visual shortcomings were more than made up for by sheer playability, and later versions of the game gave players the chance to take part as practically any club in the world.

08

07 Jet Set Willy

Software Projects, 1984

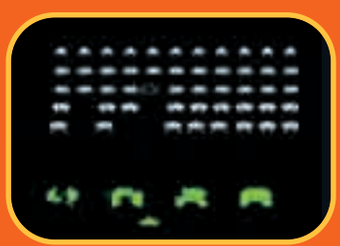


What else is there left to say about this classic title? Manic Miner redefined the platform game, but Jet Set Willy was the revolutionary game that lead to countless clones and imitations. Matthew Smith's sequel was basically Manic Miner on a much grander scale. No longer did you have to progress through the screens in linear fashion – you could now go off and explore Willy's mansion at your own leisure. Not many people completed it (in fact, it was impossible to complete when originally released), but that wasn't the point. Jet Set Willy was all about exploration. Every room was a wonder, every second playing it a joy.

07

06 Space Invaders

Taito, 1978



No top 10 would be complete without a nod to the defining moment that gave birth to arcade games. Yes, we're fully aware that it wasn't the first, but those who were there will remind you that nothing invoked so much post-school fervour as partaking in the destruction of successive columns of Insectoid Invaders. The manner in which successive waves of regimented aliens progressed unerringly towards your defensive bases, as you attempted to pick them off, remains freakishly addictive to this day. Little wonder it hypnotised an entire nation of kids. Imitated, but rarely bettered.

06

05 Zelda: Ocarina of Time

Nintendo, 1998

Yes! We're so glad Ocarina of Time has made it into the top five. This is without a doubt the best game for the N64, the best Zelda game in the series, and one of the best games of all time. This is Nintendo at its very best.

Taking the story back in time to Link's childhood, the Ocarina of Time depicted an early time in Hyrule's life, when Ganon was still a thief and Link was yet to become the hero we came to know. Alongside the classic Zelda adventuring and puzzling, the title introduced an excellent time-travelling system that let you wander through the ages, becoming an adult and influencing the world by changing the past. Because of this, puzzles were impressively deep and the quest was huge. The land of Hyrule held masses of secrets for you to find and the world was a truly absorbing place to spend your spare time. Combat was all real time, and during your adventures you could find all sorts of extra weapons, including the usual Zelda staples like the hookshot, boomerang and, of course, the Master Sword. You could even find and ride your very own horse, Epona, and learn a range of powerful songs that bestowed you with special powers. As well as all that, the game looked amazing and had a heavenly control system.

We said earlier that Nintendo's R&D team has the finest grasp of gaming design, and Ocarina of Time silences any arguments to the contrary. Anyone who doesn't like this epic title is a barefaced liar. It's that simple.

04 Final Fantasy VII

Square, 1997

Tetris made the GameBoy, Sonic made the Megadrive and Final Fantasy VII made the PlayStation. Square's enormous RPG was an instant smash hit when it arrived, and no other game showed just what Sony's first console was capable of.

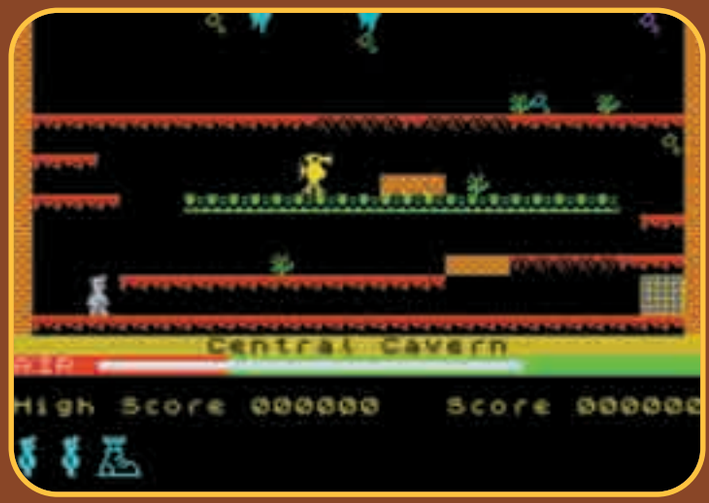
You took control of the game's main hero, Cloud Strife, who had left the employ of Shinra Inc. in order to join the Avalanche rebel group, with the goal of freeing the people from the oppression of the megalomaniac company. However, despite these humble beginnings, it wasn't long before you were involved in a struggle to save the very planet, and a classic battle between good and evil ensued.

FFVII had it all. Both style and substance flowed through the game and thanks to Square's impressive use of both pre-rendered locations and polygonal characters, the title had a very unique feel. Combat was turn-based strategy (as it would be for some time to come), and the game also possessed one of the single most complex and flexible character statistic systems ever devised. We were introduced to the stunning summon animations that saw powerful deities devastate your foes, and Square's clever integration of FMV into the game's engine was stunning.

But putting aside all of the game's technical accomplishments, FFVII's most important qualities were the epic story, the huge free-roaming world and the plethora of side quests and other activities. The other Final Fantasy titles have all been good, but this instalment in the long running series is still the best by a very long way. There are even rumours that Square is set to remake the episode for current consoles. If so, we can't wait to experience it all over again.

83 Manic Miner

Bug-Byte, 1983



This platforming classic was originally written for the Spectrum by Matthew Smith. His main inspiration was a TRS-80 game by Bill Hogue called Miner 2049er.

Following its initial release on the Bug-Byte label, Manic Miner was immediately a huge hit. It was released at a time when most Spectrum games were simple affairs that were often written in BASIC. In contrast, Miner was a stunningly smooth machine code creation. It was also big, featuring 20 screens, an almost unheard of number. And the best bit was that each screen was completely unique and was home to a variety of weird and wonderful enemies. There were no alien ships or ghosts here – Smith introduced clockwork robots, mutant telephones and man-eating toilets!

The game delivered a succession of firsts. It featured in-game music as well as standard spot effects. Granted, the shortened version of In The Hall Of The Mountain Kings was continually looped, but it worked brilliantly. The game also featured an animated loading screen, with the words 'Manic Miner' flashing as the tape played. Although this was a simple trick that used flashing attributes, it was still a first for a Spectrum game. However, Manic Miner is perhaps best remembered as being the first very difficult game. You couldn't complete this in an afternoon. In fact, you would probably never complete it. There was a fair chance you'd lose your three lives before Eugene's Lair and that was only a quarter of the way through the game!

It's a tribute to Smith's work that this 20-year-old game is still so wonderfully popular today. Here's hoping that Miner Willy remains in our hearts and minds for another 20 years.

82 Super Mario World

Nintendo, 1990

It had to be really, didn't it? Mario's Super Nintendo adventure has been voted the best Mario game ever, and the second best game of all time.

Once again, you were put in control of Mario and your mission was to save the world from the evil forces of Bowser. This, of course, meant more platforming, mushroom eating and head stomping than ever before, across a wide range of different locations, including the Donut Plains, Vanilla Dome, Chocolate Island and The Forest of Illusion. If you were good enough, you could also find secret lands, such as the Star Road, and could even complete the whole game in only a handful of levels.

Putting the power of the SNES to good use, Nintendo knew that it had the chance to create a truly massive and epic Mario title that would do its predecessors justice, and indeed, this is what was achieved. Super Mario World had it all – immaculate level design, a huge world to explore, masses of secrets to discover, all sorts of power-ups, a perfect difficulty curve and huge replay value. It also introduced us to Mario's new faithful sidekick, Yoshi, who would go on to star in his own games.

There's simply nothing negative that can be said about the game. No matter how old you were or what type of games you were into, you couldn't fail to get addicted to this platforming master class. And thanks to the recent GBA version, Super Mario World can now be enjoyed by a whole new generation of gamers.

Upon its release in September 1984 the 3D space adventure Elite was hailed as the best game ever released for the BBC Microcomputer. One reviewer dared to proclaim that it as the game of the year, regardless of machine. Both were bold claims at the time, yet looking back we find it was publisher Acornsoft's rather wordy advertisements that came the closest to predicting Elite's future impact, calling it a game "light years ahead of any other". Elite's financiers were on the money of course (and soon to be in it, too), but little did they or anyone else know that 20 years later Elite would be proclaimed – by readers rather than reviewers – the best game ever made. Ever.

3D graphics had barely entered the arcades before Ian Bell and David Braben's masterpiece invaded the homes of Britain's middle class. Yet the Elite world was one that offered more than a new perspective on the same old action game – it opened up an entirely new dimension for gamers to explore. You weren't the kick-ass saviour of mankind able to zip about a scrolling flat world – you were a free spirit in a fully realised physical universe. It was a universe far above, below and beyond any that had been experienced in games before – it was populated with radiant suns, cavernous orbital stations and dozens of viperous space ships that would bank and roll to evade your attacks, or make daring head-on passes at full speed, before launching a salvo of missiles.

And, of course, every kill, every notch on the fuselage of your Faulcon DeLacy Cobra Mk III, would count towards your combat rating. You began, predictably, as 'harmless'. Just two kills later you were 'mostly harmless'. But Elite's was a cruel ladder to climb, as 256 hard-earned victories only earned you the rating 'competent'. The Order of Elite was the ultimate prize, but it required no less than 6,400 enemy deaths and even then, after months of toil, there was no 'game over', no congratulations or fanfare. 'Right On, Commander!', then, business as usual.

Success in Elite wasn't totally reliant on being able to outmanoeuvre and take down endless waves of Kraits and Adders. Alongside the 3D combat, Elite's undergraduate creators introduced an incredibly detailed trading environment with 17 commodities that could be bought and sold between 2,000 systems. The mantra was in line with basic economic theory – 'buy low, sell high' (preferably between an anarchic agrarian system and a high-tech corporate neighbour). The longer you could evade pirates, the more money you'd have to upgrade your ship and ensure the journey from rookie to grizzled veteran was smoother and faster – for example, serious trading required a larger cargo bay, to loot the wreckage of their victims pirates would need a fuel scoop, whilst a mining laser was handy for extracting minerals from deep space rocky chunks. There were a dozen other upgrades too, from the ultimate in-beam laser technology and the LF90 Military Laser, to the ever-popular SinCorn RemLok docking computer, lest you plough into the maw of Coriolis station.

Elite wasn't for wimps. It required a BBC computer (or the key to the school computer room), a basic grasp of supply and demand, spatial awareness and a willingness to believe in a world barely hinted at in the game itself. If you lacked the latter, the novella was the perfect way to fire up the synapses. If you were denied access to a Beeb, you simply had to wait for a port of the game to arrive for your computer.

It wasn't a game for cheapskates either (but then, neither was the BBC Micro). The £17 price tag on the BBC disk edition made it an expensive game, yet one that offered more value for money than any game before or – arguably – since. Seventeen pounds bought you an entire universe, one that you could immerse yourself in for hours at a time. And that's why Elite is the best game ever made. Not because it was technically advanced and totally original, but because its gameplay was utterly compelling and its universe so believable that its appeal would last not just for hours or days, but for months – years, even. It was, as one reviewer once said, not so much a game, more a way of life. And you know what? He was right.

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Echoes of the Spectrum

To say that Spectrum audio doesn't get the attention it deserves is something of an understatement. It may never have challenged the mighty Commodore 64 in the sound stakes, but as Shaun Bebbington discovers, the Spectrum was capable of outputting more than the odd discordant beep

Just as the C64's SID chip can play a host of complex tones and arrangements, so too can the humble Spectrum. In this way, especially on the original 16K and 48K models, less is quite often more. Despite the limitations of the hardware, musicians managed to compose catchy tunes and create convincing sound effects. And to this day, the Spectrum is being used to produce impressive demos that show off the true aural capabilities of the machine.

Inside the rubber-keyed Spectrum. Note the internal speaker in the bottom-right corner

Beep beep

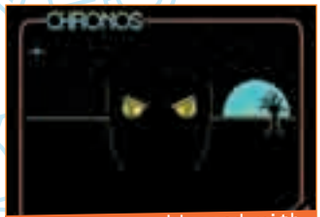
The original rubber-keyed Spectrum was hardly blessed in the sound department. In a bid to reduce production costs, Sinclair fitted the machine with extremely basic audio hardware, consisting of a small, internal speaker capable of playing a single note at a time, with 130 semi-tones and 10 octaves. This was controlled by the BASIC command BEEP, with the control parameters being duration and pitch. For example, BEEP 1,0 would play middle C for one second. During BASIC operations, sound output would cause the processor to freeze temporarily until the beep had finished playing.

The output from the machine was barely audible, thanks to the extremely quiet internal speaker, and you could not make any alterations to the tones it played other than in length or pitch. Still, it was certainly a step up from the ZX80 and ZX81, which had no internal sound hardware. Sinclair boasted that the machine could play a greater number of notes than most other machines, and the internal speaker could be amplified via the jack at the back of the machine, with the MIC socket which was used for saving programmes to cassette.

The simplicity of the hardware usually meant that early Spectrum games would play nothing more than spot effects. There were a few games, however, that managed continuous sound effects during play, such as Wheelie and 3D Death Chase. The first noticeable example of in-game music was heard in Matthew Smith's Manic Miner, back in 1983. Smith realised that playing a tone for a split second had little impact on the processor, so with some careful timing, he was able to loop a stunted version of Grieg's In the Hall of the Mountain King in the background. Taking things further, he also managed to fake a second channel of sound to include spot effects (such as Willy's jumping sound). Smith's sequel, Jet Set Willy, included a similar sound routine (playing If I was a Rich Man from Fiddler on the Roof). Those who are musically astute may have noticed that the pitch of the tune changes slightly after each life is lost. This was due to the code speeding up as there were less lives to draw and animate at the bottom of the screen. This was unintentional, but effective as a way of increasing tension.

Attempts were also made at sampling speech through the Spectrum, which were usually crude to say the least. Who could forget the demonic, badly distorted cackle which opened Activision's Ghostbusters? It was funny rather than frightening.

When it came to creating music for the original Spectrum, Tim Follin was undoubtedly the master. Working with his brother Mike, he created a sound-handling routine that pushed back the boundaries of the hardware, somehow managing to simulate as many as six voices through clever use of



Average games blessed with excellent music, thanks to Tim Follin

>Jonathan Dunn interview

Retro Gamer spoke with Jonathan Dunn, in-house musician at Ocean for over a decade. During his time at the software house, Dunn wrote music for over 20 games, including Robocop, Chase HQ and Target Renegade. We asked him about his work on the Spectrum in particular.

Retro Gamer: Please tell us a little about yourself. How did you begin writing computer-game music?

Jonathan Dunn: It started back when I left school. I'd always had an interest in computers and music, and I slowly started to combine the two. My first computer was a Dragon 32, but I soon moved onto the C64 and started experimenting with the sound package Electrosound. I entered a music competition in Zzap.64 magazine and won a runners-up prize – it all started from there. At the time I was studying Performance Music and Technology at college because I wanted to be a recording engineer or a producer, but I was sending out my music demos to lots of games companies hoping I'd get a bit of freelance work. My first ever paid job was working with Hugh Binns on Subterranea for Hewsons' Rackit label, then shortly after that I was asked in for an interview at Ocean. It was pure chance that I'd sent in my demos just as Martin Galway was leaving, so the whole Ocean phase of my life started there. I worked there for 12 years, including a two-year stint at Ocean's US office in San José.

RG: At what point did you begin working on Spectrum soundtracks?

JD: I didn't initially do any Spectrum work as I was brought in to work on the C64. Eventually I was the only musician at Ocean so I ended up doing all the different versions. I wrote my own sound drivers for the C64 but never really got to grips with programming the Spectrum, so I had to rely on some of the other programmers to provide the AY driver. I'd probably been there 12 months before I did any work on the Spectrum, so it must have been around 1987-88.

RG: Did you solely write music for the 128K Spectrum and its AY sound chip, or were you required to work with the original Spectrum's 'beeper' as well?

JD: I do remember working with the beeper. We had a driver that let you

pitch and timing. However, his unorthodox techniques were processor hungry, meaning the arrangements could only be played over static menu screens.

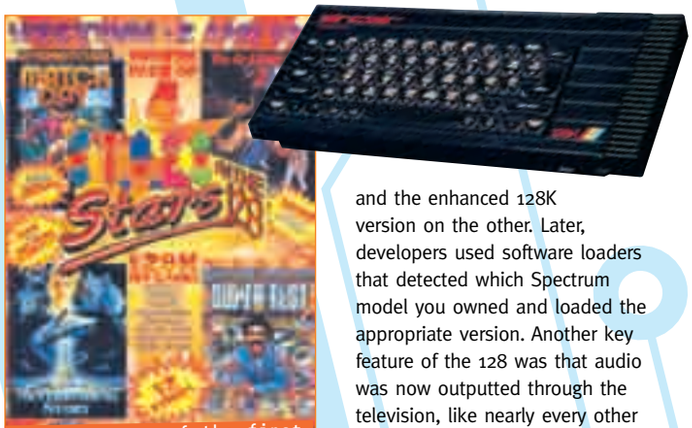
Follin's Spectrum work dates back to 1985, with Insight Software's Star Firebirds being the first commercial title he contributed to, enlivening an otherwise generic shoot-em-up with some great-sounding explosions. The same year he composed his first full track for Insight's Vectron. Playing over the menu, the piece featured pseudo three-channel output and varying waveform, attack, sustain, delay and even volume control. His later five-channel sound routines for Agent-X and Chronos (both released on Mastertronic's 199 label) surpassed the soundtracks to full-price titles. Having honed his skills on the Spectrum, Follin went on to compose music for many platforms, including the C64, Amiga, SNES and PlayStation 2.

Right on Timex

The hardware remained the same until the release of the Spectrum 128 in late 1985 – or at least it did in Europe. Over in the US, Timex (which handled Sinclair's stateside operations) released the TS2068 towards the end of 1983. This model was a souped-up Spectrum, designed to compete in the more mature American market. It included additional video mode, an extra 8Kb of ROM, a built-in cartridge port, two joystick ports and – crucially – a Yamaha AY-3-8912 sound chip. The chip enabled the machine to output four channels of sound (three square wave and one noise tone generator) covering seven octaves.

Timex Computer Corp folded in Spring 1984 (following poor sales of the TS2068 over the Christmas period), with unsold stock later emerging in parts of South America. Following Timex's lead, Sinclair fitted its new Spectrum 128 with the AY sound chip, although the TS2068's other improvements were disregarded to ensure backwards compatibility with the original Spectrum machines. Besides the expanded 128K RAM and an improved version of Spectrum BASIC, the sound chip was the machine's most useful new feature. And it didn't take developers long to release dedicated 128Kb versions of games with new and improved soundtracks. Ocean quickly added AY music to four of its older titles (Match Day, Daley Thompson's Supertest, The Neverending Story and Yie Ar Kung Fun) and released them as a compilation entitled Stars on the 128K. Daley Thompson's Supertest now opened with a faithful version of Chariots of Fire, while The Neverending Story played a looped version of Limahl's hit single throughout the game. It wasn't uncommon to buy a game and find the 48K version on one side of the tape and the enhanced 128K version on the other. Later, developers used software loaders that detected which Spectrum model you owned and loaded the appropriate version. Another key feature of the 128 was that audio was now outputted through the television, like nearly every other computer of the day. This banished memories of the old internal speaker, allowing you to finally turn up and enjoy Spectrum sound.

The Timex TS2068 was the first 'Spectrum' to feature an AY chip as standard



Ocean was one of the first software houses to support the Spectrum 128

The new sound chip meant new possibilities for musicians, including Tim Follin who followed up his considerable achievements on the old beeper with several superb AY tracks. His music for Agent-X II is impressive, but his best Spectrum work is surely the 128K soundtrack to Bubble Bobble which is almost arcade perfect. Of course, Follin wasn't the only one to try his hand at creating sound for the Spectrum. Renowned C64 musicians Rob Hubbard, Fred Gray, David Whittaker and Jonathan Dunn all turned their attentions to the machine, producing some of the best Spectrum soundtracks to date.

play sample-based sounds through it – quite an achievement really. If I remember correctly, Jon O'Brien (who coded Chase HQ) had a cool driver linked with the AY, so we could get pretty good sound out of the thing.

"Let's go Mr Driver." Jonathan has fond memories of working on the Speccy version of Chase HQ

RG: Are we right in thinking you wrote the music for the C64 originally, and then ported it to other platforms?

JD: I always started on the C64 and then converted the music over. In those days we didn't have any editors, it was all done in assembly data statements. So you had to laboriously convert all the data over from one platform to the other by hand.

RG: Perhaps one of your best-known pieces is the opening theme to Ocean's Robocop. Can you tell us how this ended up being used to advertise washing machines?

JD: It was strange. The story I've heard is that some advertising executive heard the tune whilst his son was playing Robocop on the GameBoy and thought it'd be perfect for the advert. They recorded it straight out of the headphone socket and put it into the ad. They got permission from Ocean, who apparently sold it for very little money because it'd get free advertising out of it. It even appeared in one of the broadsheets as a cartoon – might have been the Guardian or something. A picture of some advertising executive stood over his kid with a thought bubble: "That music would be great for my next advert." Should have kept a copy of that.

RG: How were you able to add speech samples to games like Robocop?

JD: To be honest, I'm not sure how it was done on the Spectrum. I think it was by using the beeper as a kind of pulse modulation, switching it on and off for varying lengths rapidly.

The theme to Robocop on the GameBoy was later used to advertise Ariston washing machines

RG: Besides Robocop, you worked on many film licences. Were you always required to create original compositions for these titles, or were you able to 'cover' the film's score?

JD: We never covered the film scores whilst I worked there. I know it had

Little black boxes

Once the AY chip was introduced, many third-party manufacturers decided to release external upgrades for the original 48K machines, usually coming in the form of black boxes with built-in mono speakers. One such device was the ZXM Sound Box from Time Data. This added an AY chip and also amplified the internal beeper at the same time. With the exception of blasting the sound out through your TV, this gave the 48K model the same audio capabilities as the 128 machine.

AY upgrades are still available today, from the German-based SinTech, which provides many other hardware solutions for the Spectrum and the popular Eastern European clone Didaktik. Its device is called the Melodik, and it adds an AY chip just like the ZXM Sound Box. The device uses the same registers as that of the 128 range, so you could conceivably port 128K titles over providing that they'll fit into the 48K memory.

An interesting upgrade came from Cheetah in the form of the SpecDrum, a device which turned any Spectrum into a cheap drum machine. At the time (1986), drum machines were expensive, costing upward of £200. The SpecDrum, on the other hand, was priced at £30. It was excellent value for money, offering the user real power and

Turn your Spectrum into a capable and versatile drum machine for under £30

control, allowing seven individual digitised sounds (only three at any one time though). Beats could be set in real time or pre-programmed, and for those whose rhythmical timing might not be a strong point, the software would self-correct any real-time inputs to the nearest stroke. With the SpecDrum you had a sophisticated kit at low cost – perfect for the budding musician to create backing tracks.

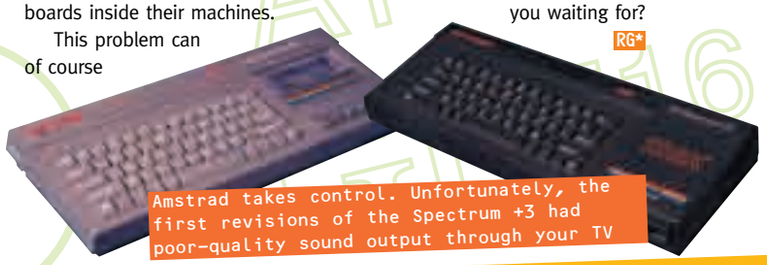
Fuzzy sound

Following Amstrad's acquisition of Sinclair, the Spectrum +2 quickly superseded the 128. The new model resembled Amstrad's own CPC464, with a proper keyboard and built-in tape deck, but inside it was essentially a 128. Within a year Amstrad released the Spectrum +3, with built-in 3in disk drive.

However, the first revision of the +3 suffered from a serious sound flaw. The analogue output from the AY was intended to be amplified, but unfortunately an important resistor was missed from the printed circuit board, causing the sound to distort through the RF-output to your television. So while distortion may sound great on your favourite Iron Maiden track, it noticeably affected the sound quality. The fault was later fixed on the +3b revision, but most people in the UK had the first boards inside their machines.

This problem can of course be fixed, provided you're a dab hand with a soldering iron. An easier solution is to use the 3.5mm audio jack on the back of the +3 and connect it through your stereo system, headphones or PC speakers. Not all headphones or speakers will work fully, so it may be a case of trial and error, but it's easier than opening up the machine. Amplifying any Spectrum, especially the 128K models, is a good idea anyway. If you've got a spare set of speakers, what are you waiting for?

RG*



Amstrad takes control. Unfortunately, the first revisions of the Spectrum +3 had poor-quality sound output through your TV

>DigiSID?

Who said that the AY chip isn't as versatile as the SID? It may well be a documented fact that the SID can produce a more diverse range of waveforms than the AY, being custom built for the C64 rather than an off-the-shelf addition. But the technical differences between the chips don't give a true picture of what can be achieved.

The Slovakian Spectrum scener 'Poke' had managed to effectively simulate SID sounds using custom routines which synchronise the Z80 processor with the Spectrum's ULA and AY chips. This adds another square-form channel to the machine, and allows any SID effect to be played. He has called his technique "Sound Multicolour".

'Poke' is currently working on a new and more diverse version of the sound engine, which should be available as a public domain release soon.

Jonathan's first paid work was for the game Subterranea, a shoot-em-up from Hewson

been done in the past when Martin Galway was there but the film studios had started to get wise to the idea and wanted extortionate amounts for the rights. It just wasn't worth it.

RG: We can imagine that licensed games had tight deadlines to tie in with cinema/video releases etc. Typically how long would you have been given to create the music for each game?

JD: That was the thing at Ocean, I was churning the stuff out. Doing multiple platforms kept me busy. In those days most of the games were being done in around 4-5 months, so there was a lot to do. I don't think I ever got to spend a long time working on any one project, especially as I was constantly trying to update my C64 sound driver at the same time. I'd generally have about 4-6 weeks to spend on each game including all the versions.

RG: Looking back, which of your Spectrum pieces are you most pleased with?

JD: That's a tough one, but I think the most enjoyable project was Chase HQ. Jon O'Brien was one of the best programmers I'd worked with. He wanted to take the time to get the audio right. He'd spend ages implementing the sound effects and the music to get them perfect.

RG: Finally, what have you been up to since the death of the 8-bit machines?

JD: After the 8-bit machines, I worked on every platform that's been and gone, including writing a sound driver for the Virtual Boy. I now have a recording studio in Manchester – Semi-Precious Studios – and still compose for computer games, although not as many these days as I'm kept busy recording house music. I've been one half of production team Soularis for the past five years and have released many records on various labels. It's been a bit like starting from scratch again to build up a reputation in a completely different genre, but we're getting there. You can check out what's happening on the website www.semiprecious.co.uk.

>Top tunes

So which Spectrum soundtracks stand out? We recently asked that question on our message board and your suggestions were duly received. So in no particular order, here are the top 10 games you voted for:

1. Cobra (Martin Galway)

The opening theme to Cobra stands out as perhaps the best ever composition for the original Spectrum. Indeed, it's hard to believe it's playing through the beeper. Not only a stunning technical achievement, but a great track to boot. Martin later used the same tune to accompany Arkanoid on the C64.

2. Agent-X II (Tim Follin)

Although this sequel is a typically cheap Mastertronic effort, the track that opens the game is amazing. As with Chronos, the tune itself is played through the beeper on both the 48K and 128K versions, with the latter introducing some superb AY percussion. Using the Spectrum in this way was very clever indeed, ensuring that regardless of your hardware, you'd still be greeted with a great track.

3. Glider Rider (David Whittaker)

Glider Rider on the C64 remains one of David Whittaker's most popular works, and this AY port is almost as impressive as the original. It's an intense keyboard-esque piece featuring great drum and bass slide effects throughout.

4. Robocop (Jonathan Dunn)

The menu music to the 128K version of Robocop is one of the best Spectrum themes. Slow and thoughtful, unlike the in-game music which is fast and frantic, the theme still sounds great today. (The similar GameBoy version of the theme was even used to advertise Ariston washing machines.) Murphy's speech samples from the film are also excellent.

5. LED Storm (Tim Follin)

Another Follin classic for your ears to absorb. Who said that the SID was king of 8-bit music? Using reverberation effects and a thumping backing track, Follin once again showed how versatile the 128 could be. Based on his original version for the Atari ST, and yet you can hardly tell the difference.

6. Bionic Commados (Tim Follin)

Synth drums and reverberated melodies are the order of the day here, using the AY to great effect and adding to the play perfectly. Seven scores are featured, including interlude music which accompanies the 'game over' and 'level complete' screens, and an individual track which plays over the high-score table.

7. Renegade (Fred Gray)

The dedicated 128K version of the game features a different tune for each of the five levels, plus a memorable opening theme, making it one of the most complete soundtracks on the Spectrum. Jonathan Dunn's surprisingly downbeat soundtrack to Target Renegade is also great, but the catchy original wins the battle of the brawlers.

8. Stormbringer (David Whittaker)

The enhanced 128K version of Stormbringer featured more screens, new puzzles, different characters and an amazing multi-part tune by David Whittaker. Featuring sound effects more commonly associated with the SID chip, the track plays for nearly five minutes before looping. Whittaker's earlier work on Knight Tyme is also highly recommended.

9. Bubble Bobble (Tim Follin)

Follin again, this time taking the bouncy arcade theme music and adapting it to the Spectrum 128. It has to be said that his attempt is more or less arcade perfect. Even if you managed to reach level 100, the tune never once became irritating.

10. Starglider (David Lowe)

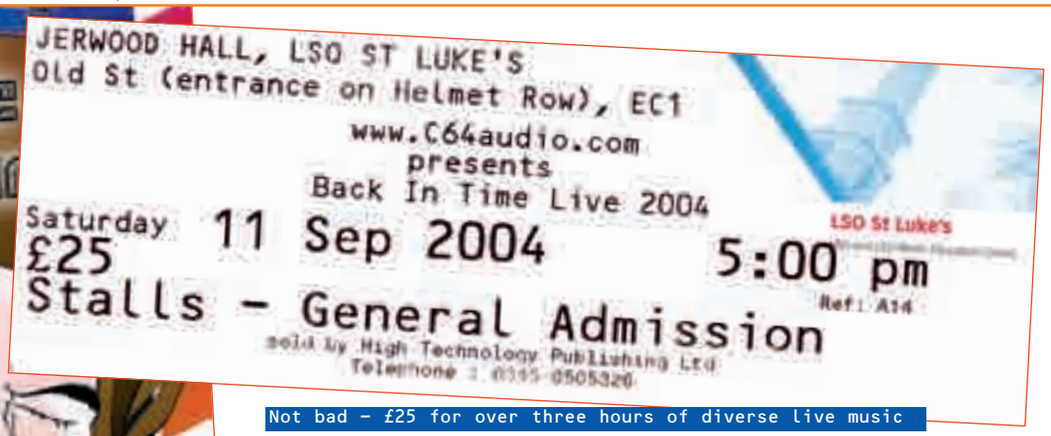
Starglider 128 opens with a pleasing three-voice track by David Lowe, but it's best remembered for the amazing sampled speech used throughout the game. Spoken by a dulcet female voice, the speech stands out as the best ever heard on the Spectrum.

eMag

>BITLive London 2004

Commodore 64 fans have always been fanatical about SID music. Some fans have taken that a step further by remixing their favourite tunes on modern hardware. At the Back in Time Live series of events, live bands and DJs have played their remixes to big crowds... and the fans get the chance to meet the composers who made the music they love. Andrew Fisher was one of those fans in the crowd at the recent London show

The official poster for the event, designed by Andy Wiffen (of DNX Design) and Sandra Scholes (of Paintbox Design)



Not bad – £25 for over three hours of diverse live music

Church of the Commodore

The venue for this year's event was St Luke's, a former church in the heart of London that is now used by the London Symphony Orchestra as a rehearsal and performance venue. Chris Abbott of **www.c64audio.com** is the driving force behind the event, with help from too many people to list here.

Acclaimed C64 composer Ben Daglish acted as MC for the evening, and had the crowd laughing and singing along. First up onstage were the self-proclaimed C64 revival band, Press Play on Tape, who were hit with technical problems during their opening song (Rob Hubbard's Warhawk). With a replacement bass, the show could go on. This year the band dispensed with the Kraftwerk costumes and concentrated on the music, delivering rocked-up renditions of classics like Arkanoid, Phantoms of the Asteroid and Roland's Rat Race.

The band took turns to introduce the tracks with some great gags. "It makes us feel like international rock stars," said Søren, the band's drummer. Mark Knight ('madfiddler') and Ben Daglish (on flute) also joined them onstage for Monty on the Run. As the band played, the screen behind them showed footage from the relevant game, although this caused some unintentional laughs with the spelling mistakes, deletions and poor playing.

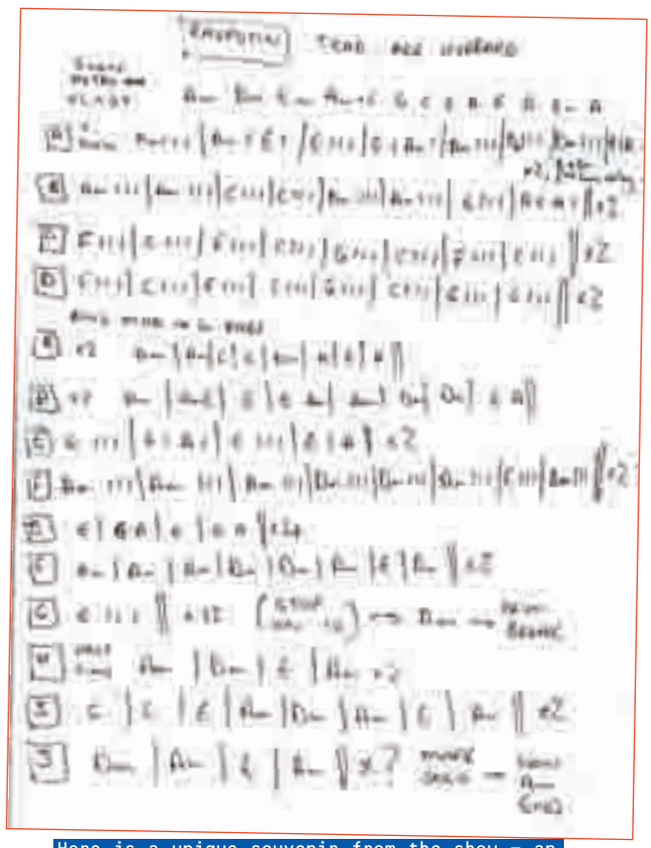
Slipped into the set this time were moments that increased the band's repertoire. Søren introduced the band's rendition of I'm a Pumpkin Man, which won him Remix of the Year 2003. They paid tribute to another C64 band with their cover of Machinae Supremacy's Great Giana Sisters. To prove they are not Kraftwerk, they played a cover of The Model with rewritten lyrics to become Das Gamer (He's a gamer, and he's looking bad...). There was also the Amiga favourite Secret of Monkey Island and the dance classic Ecuador – renamed 'Comm-o-dore'. The set ended with the frenetic One Man and His Droid.

Ben then introduced Martin Galway... and onto the stage walked Ming from Retrovision, who announced that he had eaten Martin. There was then a short interval, with remixes being played over the speakers. Larsec (Lars Erhardt Christensen, a great remixer – **http://larsec.net**) with his acoustic guitar was next up, playing a rendition of Perhaps-a-Doobie's You Were There, a funny love song based on the 1942 High Score theme.

Makké (Marcus Nilsson), the other half of the C64Mafia, then joined Larsec for their three-song set, a clever mixture of witty rap lyrics, crazy dancing and classic C64 tunes. Their songs were Don't Go Walking Slow (in Forbidden Forest), Loading Time (Death Wish 3) and Breakdance. Ben then got the audience to demonstrate how easy writing songs for three voices really was. With the audience split into three, Ben led us through the Eastenders theme tune, complete with bass, drums, chords and "a nasty square-pitch waveform" for the melody.

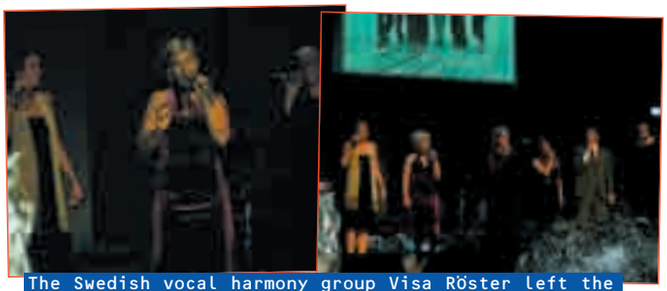
Vocal talent

The next act was making its debut at Back in Time Live, and was called Visa Röster, singing a cappella over a backing track.



Here is a unique souvenir from the show – an arrangement sheet used by Stuck in D'80s

Press Play on Tape opened the show with a storming set

This group of six singers launched into their rendition of Sweet, complete with lyrics – "Sweet games are made of this...". Dressed immaculately, the group moved around brilliantly onstage, with actions like the punching in Way of the Exploding Fist and Yie Ar Kung Fu adding to the atmosphere. Their interpretation of Comic Bakery was excellent, and was also the reason Press Play On Tape did not include their 'boy band' version in this year's set. Visa Röster finished with Armageddon Man, a beautiful

The Swedish vocal harmony group Visa Röster left the stage to a standing ovation

version of a David Whittaker tune, and left the stage to a standing ovation.

When Ben introduced Rob Hubbard, we all knew what was coming next... but Ming said he couldn't manage to eat them all. In fact, on the gallery was someone with a cut-out Rob Hubbard mask, which brought a big cheer from the audience.

The headliners, Stuck in D'80s, followed the second interval. However, when they took the stage there was no bass player. Ben asked the audience if anyone could play bass, and from the back of the hall walked Jon Hare from Sensible Software. With the line-up complete, they launched into an outstanding set. Classic tunes like Way of the Exploding Fist, IK+ and Deflektor ("I worked out how to do a cowbell sound on the C64, so I had to write a tune using it," said Ben) were superb, and Paperboy was as funky as ever. Mark Knight really went to town, jumping up and down on his effect pedals, and even improvising in a break during the set. Visa Röster returned to the stage to join in on Spellbound, and the finale was Rasputin. Mark walked around the audience and bounced around the stage, putting everything into it despite suffering from a chest infection.

It took a long while for the crowd to disperse and then gather together again in the pub across the road. This is another important aspect of the whole Back in Time Live vibe – the socialising. People reminisced about the old days, caught up with friends and made plans to meet up again. Many alcoholic beverages were consumed, and after closing time an impromptu photo session took place on the pavement outside.

Headliners Stuck in D'80s in action. They opened their set with Way of the Exploding Fist

Game over

In conclusion then, a wonderful event and a great occasion as well. What other show could give you rock, rap, comedy, vocal harmony and funk in a single evening? The only negative things I can find to say about the evening were the lighting problems, the smoke machine obscuring the performers, and the fact it had to end.

So, is this the last event? Takings on the night were good, but organiser Chris Abbott admitted that the event as a

>Ben Daglish

Ben went to the same school as programmer Tony Crowther, and started composing music for his games. He appears regularly with the Loscoe State Opera, and Cold Flame (a Jethro Tull tribute act). We spoke to him after the show.

RG: How does playing with Press Play On Tape and Stuck in D'80s compare with your other bands?

Ben Daglish: It's completely different. With the Loscoe State Opera, we have a lot of rehearsals. With Stuck in D'80s, we create something special out of nothing. I love playing with Mark Knight, and Jon Hare is a top bloke. We stayed up till 4.30am last night, arranging the songs.

RG: You've acted as MC for the last three Back in Time events. Do you enjoy that role?

BD: Yes, I like talking to audiences. I mean, I've been gigging since I was 10, so I'm comfortable with audiences. It's a nice role, and I get to entertain.

RG: How did Stuck in D'80s get together?

BD: Chris Abbott and Andreas suggested it would be a good idea to have the original composers performing at the events. We formed the band for the Brighton event last year.

RG: How did you choose the tunes for the band to play?

BD: Well, Reyn Ouwehand [who performed with the band in 2003] was a big influence. His version of Deflektor is my favourite arrangement of one of my tunes. I like Paperboy because it lets us 'funk along' for a while. Rasputin was probably Mark's choice, as it's designed for the violin.

RG: Do you want to keep playing with this band? What about recording with them?

BD: I definitely want to keep playing with them – they are all great musicians. Going into the studio? I don't know, it's more of a live thing, this special thing we put together for the live events. We just get on and do it.

RG: Would you like to compose for a modern game?

BD: No, I like melody too much. I'm not interested in modern game music. I got out of the gaming industry when the 'suits' moved in – I'm not the sort of person who likes wearing a suit.

>Stuck in D'80s

Visa Röster joined Stuck in D'80s onstage for Spellbound

After speaking to Ben Daglish, we had a chat with the rest of the band at the end of the show. Andreas Wallstrom, drummer and webmaster of **www.c64hq.com**, spoke about getting the band together: "I told Chris Abbott that I wanted to put a band together for BIT Live Brighton, because I saw my chance of playing with some of my old heroes. Chris told me that Reyn, Ben and Mark were interested in playing, so I mailed Reyn and also Marcel about putting a band together, Chris talked to Ben and Mark, and Stuck in D'80s was born.

"Brighton was magical because it was the first time the band played together. This year we were a lot tighter and that gave me a buzz. Just imagine what we'll sound like when we play together next time!

"It's been an honour to play with these guys and in front of the true C64 fans. Being great musicians and the nice people that they are, I will definitely go on playing with them. I hope that both Jon and Reyn will play next time, and also Rob Hubbard who was going to join the band this year but had to cancel because of personal reasons."

Jon Hare of Sensible Software played bass on the night, standing in for Reyn Ouwehand at short notice: "Reyn couldn't make it, so Chris phoned me on Wednesday of this week and asked if I could step in. I've only had one day of rehearsal, plus the sound check. I'd like to do more gigs with this group, I got on well with them all."

Keyboard player Marcel Donné, meanwhile, spoke about the possibility of studio work: "I really enjoyed it, absolutely. In fact, I'd like to record with these guys. In a studio, anywhere – England, Scotland, Holland. I'm going to start work on my next remix CD sometime next year."

Mark Knight, also known as 'madfiddler', played two different electric violins (one a four-string, the other a six-string he described as a "strap-on"). He thoroughly enjoyed the show, and hoped that the band could play together again soon: "It was fantastic, it's only my second gig this year. I've always been a C64 fan, and then Chris Abbott contacted me about playing on the Back in Time 3 album. I was going to play Monty on the Run at Back in Time in 2002, but had to pull out of the gig at the last minute. But I played last year, and I've really enjoyed it again this time. Let's hope we can do it again in the future..."

>Visa Röster

The surprise hit of this year's Back in Time was the vocal harmony group from Sweden. Roughly translated, the name means 'Show Voices'. Formed by Pex 'Mahoney' Tufvesson, they interpreted several classic tunes in an a cappella style. We talked to the group after the event.

Pex (tenor): I went to Brighton last year, and thought, "Next year I am going to be here, performing." We've been singing as a group for two years, and I have used the voices before in my remixes. So I knew what would be the perfect song for each performer. We started rehearsing in August, and I would do the arrangements of each song. We recorded the CD at the same time, so the whole thing has been put together in six weeks. I enjoyed performing, but I was nervous before.

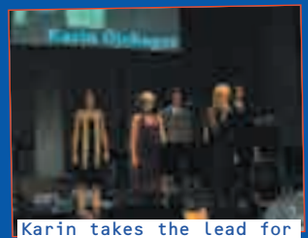
Johannes (bass): I loved it. It was a great concert. I used to have a C64, so I knew some of the music already. As we rehearsed and performed, all the memories of the games started to come back.

Elsa (alto): I really did enjoy the performance. We have done shows singing the Swedish folk and pop songs from our other CD. The movement and choreography onstage was done by the girls, with help from Johannes who is into drama and performing.

Sofia (soprano): We didn't know how people would react to us, but we are glad people enjoyed it. I've always been singing and playing music, and we did this for fun.

Karin (soprano): Pex got me involved, with one of his remixes. I learnt his arrangements of the tunes, and then went back and listened to the originals. I like Pex's version of Armageddon Man – it's very dramatic.

Hanna (soprano): It was very good, and I'd like to do it again. I enjoyed working with Press Play on Tape. Apparently I've had three marriage proposals tonight from people in the audience!


Karin takes the lead for International Karate

Fans queue to buy the Visa Röster CD and get it signed

Larsec and Makké, the C64Mafia, ready to take over the world...

whole will have made a large loss, even with the sponsorship of several individuals and groups. One thing is for certain though – the performers want to go on performing. Mark Knight and Ben Daglish will be performing an acoustic SID set at Retrovision 5 (**www.retrovision.org.uk**) in February 2005, and there will also be a musical event as part of the Classic Gaming Expo UK (**www.cgexpo-uk.com**) in July 2005. The exciting thing is that planning has started for an event in 2006 – possibly in Copenhagen. Keep an eye on **www.backintimelive.com** for information. RG*

Outside the pub at closing time. From left to right: Gary Liddon formerly of Zzap 64, Mark Knight, Ben Daglish, Andreas Wallstrom, Jon Hare, Marcel Donné and Jan Lund Thomsen

eMag

:-Coin-op Conversions

You loved the games in the arcades, so naturally you wanted to love them some more on your computer or console at home. But how did the home conversions compare to the arcade originals? And which versions were the most faithful? This month Robert Mellor looks at two Capcom classics – Ghouls 'n' Ghosts and Strider

In the late 1980s, Capcom decided to up the ante in terms of what was possible with 2D arcade gaming, by introducing the Capcom Play System 1, or CPS1 for short. This advanced new hardware allowed the games designers at Capcom to drag arcade side-scrollers, beat-em-ups and platformers kicking and screaming into the 90s with a series of stunning coin-op games. The new system was a massive hit, spawning both sequels to older games from the Capcom stable, as well as new titles that would go on to achieve legendary status. As expected, these new arcade blockbusters were converted and made their way onto home systems in the late 80s and early 90s.

Ghouls 'n' Ghosts

One of the first games to appear on the new CPS1 hardware was this sequel to Capcom's old chestnut, Ghosts 'n' Goblins. Released in 1988, it was another side-scrolling platformer in which the player was once again assigned the task of controlling the brave Sir Arthur on his quest to rescue his damsel in distress, Lady Guinevere, from the clutches of the evil Loki, now in charge of Hell's minions. It seemed the mighty Satan himself suffered a fair bit of embarrassment following his defeat at the hands of Sir Arthur in the first game, and was promptly overthrown by fellow demon Loki, who was convinced he could do a much better job of running the Underworld. With all this evil commotion taking place, the entire army of the dead naturally decides to have a field day, attempting to hinder our brave knight, wherever possible, on his quest to rescue the fair maiden.

Ghosts 'n' Goblins began in the familiar surroundings of a creepy cemetery. From there Arthur had to battle his way through six stages swarming with grim reapers, vultures, ogres and dragons, and traverse many diverse landscapes, ranging from a dilapidated Camelot to the final showdown in Loki's throne room.

Despite the fact that it wasn't an overwhelming success on its initial arcade release, Ghouls was nevertheless an impressive coin-op. The game took the simple formula of the first title and spruced it up with gorgeous graphics, atmospheric sound and maddeningly addictive gameplay. There was plenty of variety to keep the player hooked, such as scenery changes, bonus weaponry to be picked up along the way, and, of course, humorous elements like the sight of Arthur being stripped down to his strides when he took an initial hit or being transformed into a frail old man complete with walking stick by a pesky magician. Another feature not present in the first game was the ability to grab golden armour that allowed you to launch a special attack, which varied according to the weapon you were holding.

The game also showed off the hardware's technical abilities via the gigantic boss characters that waited at the end of each stage to challenge Arthur. Perhaps the only criticism that could be levelled at the game was that, much like its predecessor, it was goddamn difficult – this was principally due to the immense number of baddies you had to contend with at any one time. The game's ultimate cheap-shot, however, came when you reached the final showdown with Loki, at which point you were told you had the incorrect weapon with which to deal with him and were ordered back to the start of the game!

Home conversions

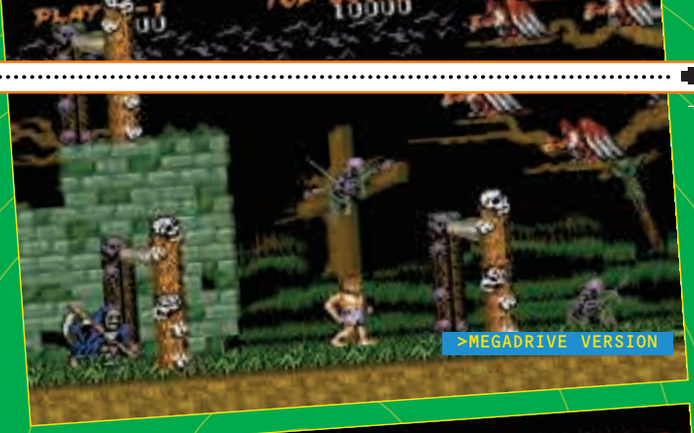
From 1989 onwards, Ghouls 'n' Ghosts made its way onto the majority of home platforms, from the 8-bit micros to the 16-bit consoles. It became clear that even the latest arcade blockbusters could be converted to any machine with a high degree of success if the basic fundamental elements of the original remained intact.

Sinclair Spectrum: Software publishers US Gold had a very productive relationship with Capcom in the late 80s, so it came as no surprise when it picked up the rights to Ghouls 'n' Ghosts in 1989 and contracted Software Creations to handle the conversions for all its main home computers.

Like many coin-op conversions of the time, the Spectrum version of Ghouls opted for a condensed playing area with a neat little status display. Graphically, the rubber-keyed wonder once again proved that while it couldn't compete with the impressive colour palettes of technically superior machines, it could still provide excellent monochrome renditions of the arcade sprites and functional backgrounds to set them against.

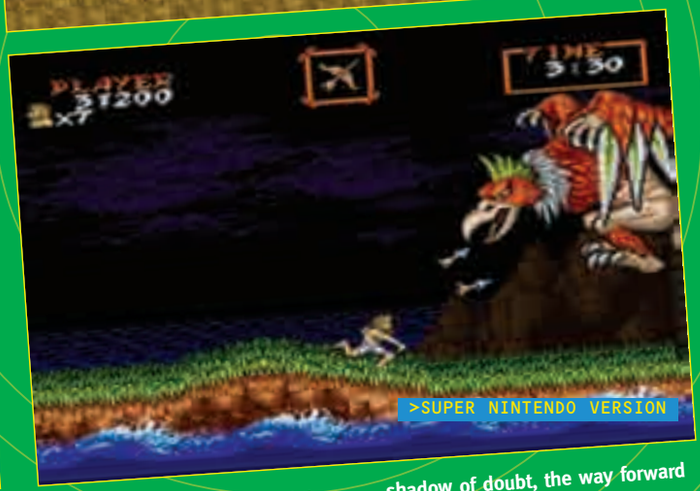
Tim Follin's sound was great too, particularly on 128K systems, and it was clear that Ghouls was a game that could transfer successfully to any system as a result of its simplistic 2D gameplay. The only downside was that the control system proved a little tricky as the arcade game had both a jump and fire button,

>AMSTRAD CPC VERSION



>MEGADRIVE VERSION

>AMIGA VERSION



>SUPER NINTENDO VERSION

meaning that on the home computer versions you had to jump upwards before you could aim your shots skywards.

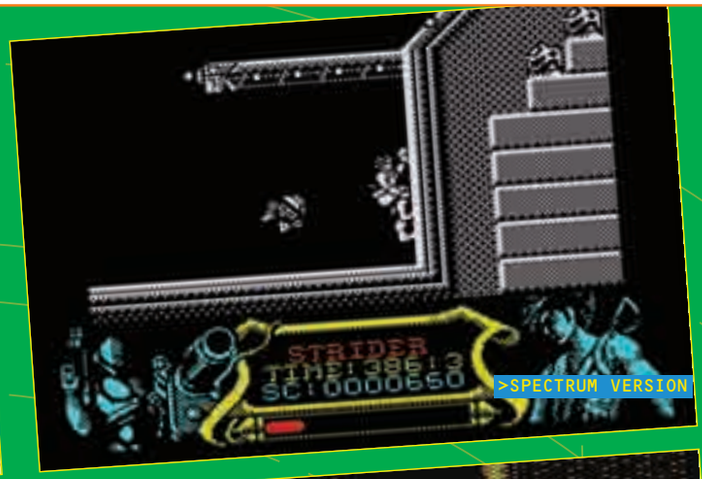
Commodore 64: Elite Systems' port of the original Ghosts 'n' Goblins had been a smash hit and was widely regarded as one of the finest coin-op conversions ever, so the Commodore version of Ghouls had a lot to live up to. Thankfully, it more than managed it and proved that the C64 was capable of faithfully reproducing arcade games of the day. Not only was this a great-looking conversion, it managed to totally embody the essence of the arcade original as well. Despite an initially uninspiring title screen, the game's presentation was also good, with a choice of either in-game music or sound effects – both of which were excellent – and a very handy Continue option. Gameplay was subject to slight slowdown on occasions, but that didn't detract from the fact that this was a fantastic version all round.

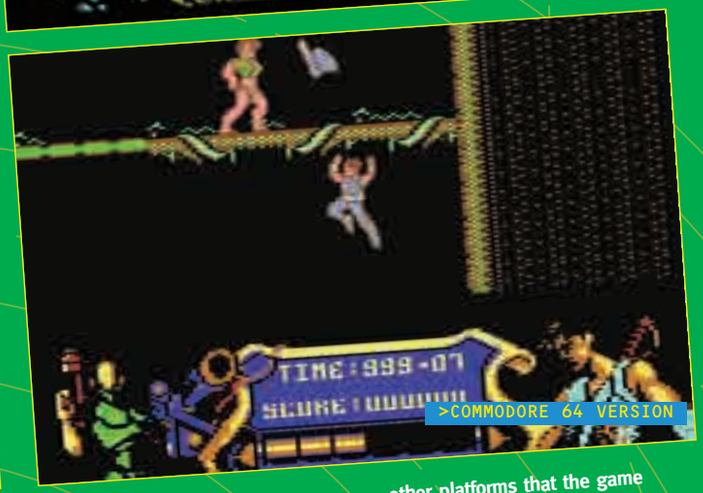
Amstrad CPC: Like a lot of Amstrad games of the time, this version bore a striking resemblance to the Spectrum port, but thankfully managed to add a splash of colour to improve the visuals. Graphical problems occurred when Arthur found himself down to his underwear, as the main character sprite had a tendency to blend into certain backgrounds in later stages, which made visibility rather challenging. The backgrounds were somewhat limited, making it appear one of the weaker home versions, at least visually, but thankfully the game's strength once again lay in its sheer playability. The sound was pretty good too, with the arcade's main theme making the transition relatively unscathed, and on the whole this proved a very satisfactory version. As with the arcade original, the main stumbling block lay in the game's insane difficulty level, but it retained its addictive quality and the player's desire to see the next level was always strong.

Commodore Amiga: The 16-bit Commodore version won many plaudits when released in the latter part of 1989, and it's not difficult to see why. As with the 8-bit attempts, the gameplay was perfectly intact, but Software Creations naturally took full advantage of the Amiga's excellent graphic and sound capabilities. The Amiga had to settle for a slightly reduced playing area, but a smart status panel at the bottom of the screen added a touch of class to the proceedings. The sound was superb and the programmers successfully managed to copy the fast, frenetic and fun gameplay of the coin-op to dramatic effect. In retrospect, this version perhaps didn't make quite as much use of its platform as, say, the C64 version did, but it was a sterling effort and definitely the best home computer version from US Gold.

Sega Megadrive: In terms of being a direct and faithful port of the arcade original, Sega's Megadrive version definitely outclassed all the other efforts. Apart from the slightly limited colour scheme of the 16-bit Sega and the odd tinny sound effect, this version was extremely faithful to the coin-op. The Megadrive's three-button joypad also added an extra dimension to the control system, which was lost on the computer conversions, and the game zipped along at the speedy pace of Capcom's original. Ghouls proved to be one of the biggest reasons to own a Megadrive in the early 90s, and demonstrated that the 16-bit consoles were, without a shadow of doubt, the way forward when it came to converting the more demanding arcade games of the era.

Super Nintendo: Realising that it had to compete with the excellent Megadrive port with a version for its own 16-bit console, Nintendo allowed Capcom to create a supercharged version of the game for the SNES in 1991. Entitled Super Ghouls 'n' Ghosts, Nintendo ensured the public that it could match whatever Sega put on the table and even, at times, outclass it. This new special edition of the game featured a new plot, new levels and a new style of gameplay, thanks to the ingeniously implemented double-jump move that allowed Arthur to scale even greater obstacles. The title also featured an excellently reworked soundtrack, lovely presentation, thanks to a scene-setting introduction, and amazing graphics that served up a host of new enemies, chilling settings and scenery that actually shifted as you advanced through it. Overall, this SNES incarnation of the game was the ultimate home version of Ghouls, and perhaps even a step above the original arcade machine.





Strider

Following the release of Ghouls, Capcom proved that its new hardware was capable of even more when it released Strider in 1989. The game was somewhat unoriginally set in the year 2048 and saw a futuristic Earth in the midst of a major catastrophe. The evil Grand Master Meio, a ruthless dictator from a distant star system, had set his sights on conquering the planet and kicked off invasions with a vengeance. Setting up his base of operations in Eastern Europe (where else?), Meio gradually swept through the world with his armies of foot soldiers and robots until he had conquered five major continents. About the only remnant of civilisation left untouched was the remote island of Moralos, home of the secret training institution of the Striders, an elite group of futuristic martial artists. As the youngest and most skilled exponent of the art ever to reach the level of 'Class A' Strider, the gifted Hiryu is chosen to go it alone against the forces of Meio and restore peace to planet Earth. Taking the role of Hiryu himself, the player had to skydive into Kafazu and slowly advance through all the occupied territories, wiping out any resistance met along the way. Armed only with a plasma sword and plethora of athletic moves, the game took players from Eastern Europe to Siberia, and finally to the showdown with Meio himself on his lunar battle station.

Much like Ghouls, Strider was never a massive hit as a coin-op, but gained many admirers due to its unique approach to the platform genre. Rarely had players experienced such a well-rounded and dexterous character that provided complete freedom of movement. The game had a totally non-linear approach in as much as the player didn't feel bound to simply advancing from left to right, and was able to scale walls, hang from ceilings, advance up towering structures and majestically cartwheel through the air over gaping chasms.

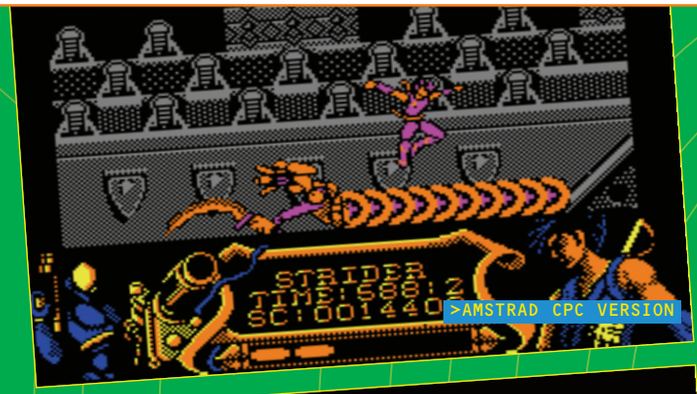
Capcom excelled in its presentation of the game – it offered enormous, well-animated sprites, detailed backgrounds, story-enhancing cutscenes, and loads of sampled speech. The game's real strengths, however, were its fluid play and dazzling pyrotechnics – demonstrated most memorably in the Siberian stage, in which players were thrown into a breathtaking mountain descent that many were sure would be impossible to recreate even on the most powerful home systems.

Home conversions

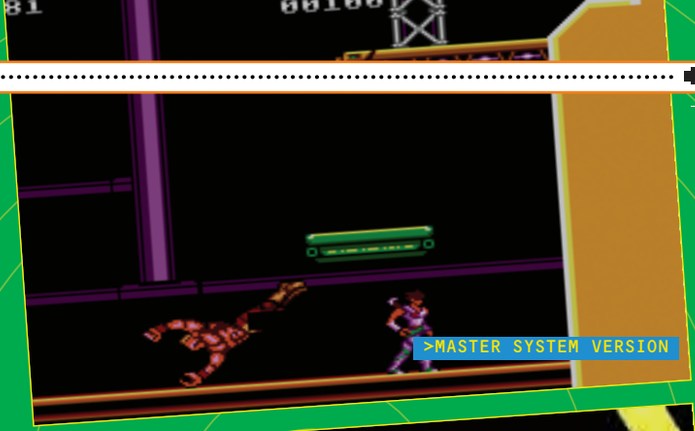
Strider was an obvious choice for converters to try their hand at. However, the difficulties involved in converting such an impressive coin-op would result in a number of home versions of varying degrees of success – from downright disappointing to virtually arcade perfect.

Sinclair Spectrum: Once again, software giant US Gold exercised its close friendship with Capcom when it picked up the rights to home versions of Strider in 1989, this time contracting the conversions out to Tiertex. Somewhat surprisingly, its Spectrum port of the game turned out to be largely successful – even more so than the majority of other platforms that the game appeared on. While the glowing visuals of the coin-op were naturally out of the Spectrum's league, it nevertheless proved that it could turn in extremely faithful main sprites that were almost identical to their arcade counterparts, despite an obvious lack of colour. The programmers thankfully kept the things simple with a basic black and white playing area and a well-thought out status panel to underline the action. All of the main moves from the coin-op were incorporated into the conversion, along with extremely fluid play that actually ran faster than any of Tiertex's other home-machine efforts.

Commodore 64: After the successful Spectrum port, gamers had high hopes for the C64 conversion, but were soon let down when it turned out to be the worst of the bunch. The main sprites were designed well enough, but the game had a very gaudy colour scheme along with a distracting border that made the playing area feel cramped. Sound was also minimal, despite a pleasing SID rendition of the main theme. Controlling Hiryu proved an



>AMSTRAD CPC VERSION


>MASTER SYSTEM VERSION

>AMIGA VERSION

>MEGADRIVE VERSION

extremely tedious and sluggish affair and the joystick was very unresponsive at times. The port also became frustrating, due in part to its level of difficulty and the fact that enemies could take cheap shots at you from any point in the playing area. The C64 version perhaps wasn't as bad as the reviews of the day suggested, but it was an indication that the trusty Commodore was finding it increasingly difficult to keep up with modern arcade technology.

Amstrad CPC: The Amstrad machine received a very respectable version of Strider. Presentation was impressive from the start, with a well-designed title screen and both music and FX incorporated into the mix. In terms of sprite and level design, this version was very similar to the Spectrum title, but the programmers had wisely decided to add a welcome splash of colour. The end-of-level bosses were always going to be problematic on machines of lesser capabilities, but the Amstrad did a fine job of fitting them into the game and they looked just as faithful to the original as they did in the Spectrum version. Overall, this perhaps wasn't as impressive as the Sinclair version, as it suffered from slight slowdown and a touch of the dreaded sticky-control syndrome, but it was still perfectly playable and was much better than the C64 title.

Commodore Amiga: The Atari ST conversion met with critical acclaim upon its release, so naturally much was expected from the Amiga port, and in the keen eyes of the public it certainly lived up to those expectations. Retaining the condensed playing area and status panel format of the 8-bit versions, the Amiga took full advantage of its 16-bit capabilities by offering sampled speech, cutscenes and a good mix of simultaneous music and sound effects. Graphically, the game was basically a slimmed-down version of the arcade game, with small but detailed sprites and most of the enemies present. Play was also pleasing, but sadly even the mighty Amiga couldn't escape the inevitable slowdown when the hero performed aerial manoeuvres or when larger enemies appeared on screen.

Sega Master System: Sega itself handled the conversion for its 8-bit console in 1991, and produced what was essentially a scaled-down version of the Megadrive port. The graphics and general presentation were weaker than the arcade original, but they were functional and served their purpose. The sprites were impressive for an 8-bit and most of the enemies made the transition, but the game suffered due to re-mapped level designs that gave it a very different feel to the coin-op original. Animation was also a little sluggish, which made the game move at a slower pace, but the title still played reasonably well. Hiryu had all his basic freedoms, but the inevitable slowdown once again made the gameplay somewhat tricky – especially when the player had to time a vital jump to perfection. Amazingly, the Master System did manage to include the bosses in the game, and while they didn't have the sheer presence of their arcade originals, they were nevertheless quite well done for an 8-bit machine.

Sega Megadrive: To this day, the Megadrive port remains one of the greatest coin-op conversions of all time. While the reception of Strider on other platforms had been generally good, this 16-bit console version, ported by Sega in 1990, put all other attempts to shame. Aside from the fact that it lacked a little of the speech, a few frames of animation and a spot of colour depth here and there, this was the arcade version in all its glory. The title almost acted as a demonstration piece, indicating exactly what the Megadrive could do when it came to demanding coin-op conversions. The version managed to translate every aspect of the original. Presentation was faultless – there was an exact replica of the arcade title screen and attract mode, all the cutscenes, sampled speech, every last piece of music, impressive parallax scrolling and stunning graphics. The game was a joy to play and suffered virtually no slowdown, even when facing the larger boss characters. But as with the arcade version, the real centrepiece proved to be the Siberian mountain descent. While the other home versions had tried in vain to simulate this stunning display of graphics, speed and pyrotechnics, the Megadrive version managed it with ease, sealing its reputation as the platform to great arcade games to. RG*

MIRRORSOFT

>Reflections of Mirrorsoft

Many people will best remember Mirrorsoft for bringing Tetris to the Western World, but there's much more to this UK publisher than that. Former Mirrorsoft employee Richard Hewison charts the history of the company, from its low-key launch in 1983 to its untimely demise in 1991

Mirrorsoft came about thanks to the forward-thinking actions of one man. Jim Mackonochie worked as Development Manager for Mirror Group Newspapers back in the early 1980s, and part of his role was to introduce new technology into the company. This included the move from traditional hot-metal typesetting to photocomposition (computerised publishing).

Whilst visiting the US, Jim saw a Commodore PET for the first time, and more importantly, a spreadsheet application called VisiCalc. As Jim recalls: "To anyone involved in management and budgets, a spreadsheet was something of amazement. I bought the kit on the spot, and in a few weeks had a basic financial model of the newspaper up and running, doing in seconds what a department took four weeks to do."

From that point onwards, Jim was hooked on microcomputers. He saw a future dominated by computers at work and in the home, and instinctively knew that, as a communications company, the Mirror Group needed to become closely associated with computer software.

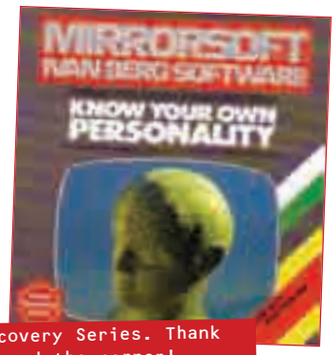
An educational upbringing

In 1983, Jim approached the Mirror Board with a proposal that it should launch software under the Mirror brand. It was a logical move, as the Mirror Group was already involved in a number of commercial activities outside of newspaper publishing, including Mirror Boats and Mirror Books.

The idea of setting up companies outside of the newspaper business was regarded as a loss-leader branding exercise, helping to promote the Mirror Group in what was then a new and rapidly expanding market. Jim's proposal was given the go-ahead, but only as an addition to his normal day-to-day activities. Thankfully, he was allowed to draft in help from his existing staff to prepare Mirrorsoft for the official launch in the autumn of 1983.

Mirrorsoft didn't have to advertise for programmers. As soon as the news got out that the Mirror Group was entering the software business, hopeful developers sent in a number of unsolicited submissions. From those submissions, a series of business relationships were forged, and the first three Mirrorsoft titles came into existence.

A decision was made to concentrate initially on educational titles for young children. This was a fairly undeveloped market at the time, and Jim Mackonochie's first step was to acquire the rights to the ever-popular Mr Men. Created and drawn by Roger Hargreaves, the Mr Men were already a big hit with children across the UK,



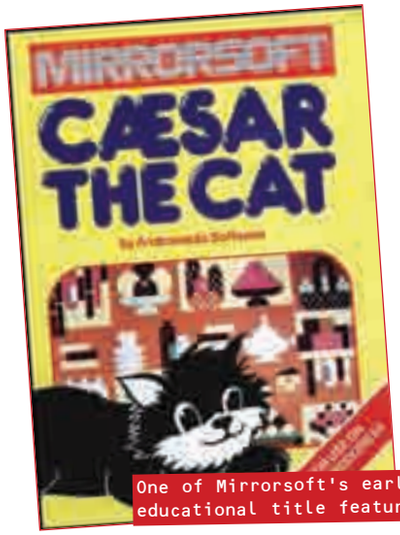
Two titles from the Home Discovery Series. Thank God Dynamite Dan was just around the corner!

including Jim's own son and daughter. The first releases were First Steps with the Mr Men, Caesar the Cat and Quick Thinking. Primer Educational Software, set up by primary school teachers Trevor Dudley and Chris Muncke, was chosen by Mirrorsoft to create First Steps with the Mr Men, initially for the Sinclair Spectrum and the BBC Micro, and later for the Commodore 64 and the Amstrad CPC. The package was aimed at four to eight year-olds, and consisted of four separate Mr Men games.

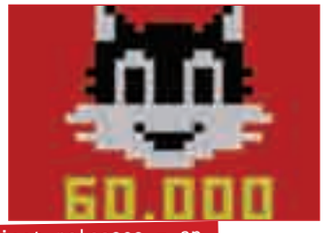
Andromeda Software submitted Caesar the Cat as an almost finished product, and Widgit Software (publisher of Shape Sorter, The Humpty Dumpty Mystery and Castle of Dreams) was approached to write Quick Thinking. Widgit went on to produce Look Sharp, Phineas Frogg and Word Games with the Mr Men for Mirrorsoft, whilst Andromeda would produce a number of other titles and would also play a central role in another Mirrorsoft-licensed game four years later – a little something called Tetris.

Mirrorsoft published a number of other Mr Men titles over the next three years, including The Mr Men Magic Story Maker, Here and There with the Mr Men, and Hi Bouncer!. H&H Software developed the latter title, having already written and published its own educational titles on the BBC Micro, including Looney Lift and Signals and Magic. H&H was run by husband-and-wife team, Rod and Mary Hyde. As Rowan Software Ltd, the couple became significant developers for Mirrorsoft over the next seven years, helping to write a series of successful flight simulators, including ST and Amiga conversions of Spectrum Holobyte's Falcon, converting Spitfire 40, and writing their own original simulator titles like Strike Force Harrier, Flight of the Intruder (based on the eponymous novel by Stephen Coonts) and Reach for the Skies.

In the early 1980s, Ivan Berg produced 'lifestyle' videos (keep fit lessons being one example) and he approached Mirrorsoft to create a series of leisure titles that included the likes of Mastermind, Know Your Own Personality, Know your own PSI-Q and The Joffe Plan (a dieting program). He also had similar associations with Acornsoft at the time, producing a series of educational Quiz-based titles. Mirrorsoft saw the Ivan Berg titles appeal to the same broad customer base that the Mirror newspaper attracted, so they were published as part of the Home Discovery series. This included Star Seeker – an astronomy program produced in association with the London Planetarium.



One of Mirrorsoft's earliest releases – an educational title featuring a cute kitten



Maxwell's Mirror

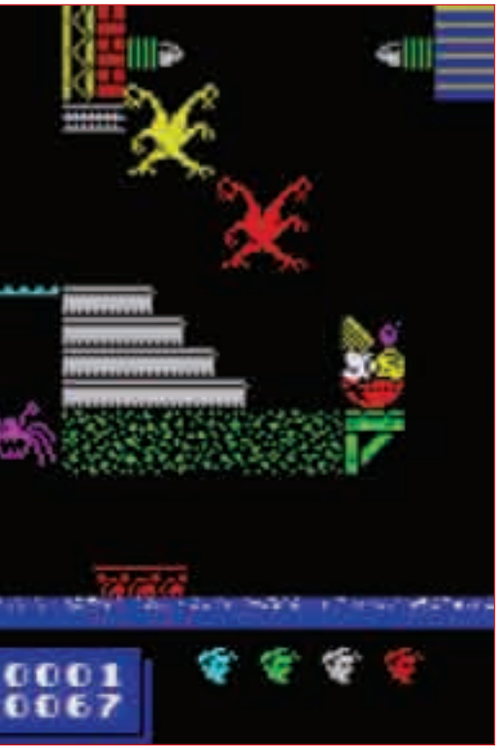
Maxwell Communications bought Mirror Group Newspapers on 12th July 1984, and for the first six months nothing much changed as far as Mirrorsoft was concerned. The company was still run much like a 'skunkworks' project, with everyone doing their day jobs as well as helping to publish Mirrorsoft titles. However, all of that was to change after a phone call made to Jim Mackonochie on Boxing Day, 1984. "I was called by Kevin Maxwell to tell me that I would no longer be the Development Manager of the (Mirror) Group, but that they wanted me to stop playing at software publishing and to do it properly."

Dynamite Dan. Brilliantly playable and brilliantly colourful. Just brilliant all round really

Jim was therefore made Managing Director of Mirrorsoft, and was allowed to start recruiting dedicated staff. Despite being part of a large global communications group that was now owned by a multi-millionaire publishing tycoon, Mirrorsoft was not given an open chequebook. Jim initially employed four or five new members of staff to help get the full-time operation up and running.

Mirrorsoft finally entered the mainstream computer games market in the summer of 1985, and one of the first releases was Dynamite Dan. The game was written by Rod Bowkett for the

Spectrum, and converted to the Amstrad CPC and Commodore 64. It was an arcade platform game from the same mould as the classic Jet Set Willy, but with far superior graphics. The player had to explore the evil Dr Blitzen's remote cliff-top retreat and collect eight sticks of dynamite. Dan's ultimate mission was to find and blow open Doctor Blitzen's safe with the dynamite and recover some stolen top-secret plans. To succeed, the player had to avoid or jump over obstacles, and collect food and other useful objects along the way. It was



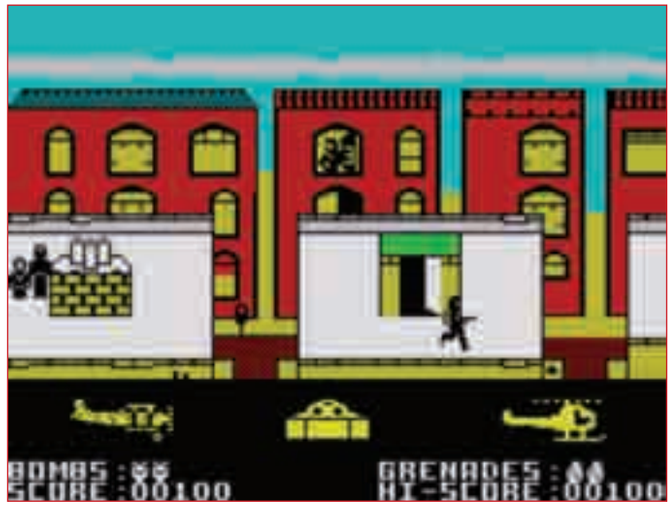
amazingly difficult, but there was an incentive. By naming the tune that played when Dan escaped in his airship at the very end of the game, players had a chance of winning a flight in the Goodyear Blimp.

Apart from educational and games software, Mirrorsoft also started publishing more serious business titles like File Rescue Plus, Timeslips and Personal Assistant for the IBM PC. By far the most well-known title though was Fleet Street Editor, which was Jim Mackonochie's pet project: "Given my print background, I was very interested in the emerging concept of desktop publishing. We only had word processing capability then, and I was interested in making up pages with columns on the screen." The name for the package came from much higher up the Mirror Group chain of command, as Jim explains: "I had briefed Kevin Maxwell on the plans for the product and had mentioned that we were still trying to think of a good name. He called me the next day, and said he had mentioned it to his Father (Bob), who had said, 'There is only one name – Fleet Street Editor!'"

The first version of Fleet Street Editor was published in 1986, for the BBC Model B. The PC version was an imported application from the US, and the Atari ST version was written from scratch by Gill Zaum, who had been a software contractor on the 'real' Linotype Paul mini-computer systems in use at the Mirror newspaper. An Amstrad CPC/PCW version was also published, running under CP/M. Updates and add-ons were produced for the ST version up until late 1990, when support for Fleet Street Editor (which had reached version 3.0) was finally dropped – much to the relief of Mike Merren, who by then was the only Mirrorsoft employee still tasked with providing technical support for it.

Mirrorsoft hit a prolific publishing vein throughout 1986, releasing a number of 8-bit games including Dynamite Dan II (another platform game and sequel to its earlier hit), Sai Combat (a beat-em-up), Strike Force Harrier (a flight simulator based on the Harrier Jump Jet), the Spectrum conversion of Spitfire 40, Zythum (a shoot-em-up), Biggles (a film-licensed multi-part arcade game) and Action Reflex (an arcade puzzle game).

The majority of the games were commercial and critical successes. But, having successfully made the transformation from part-time publisher of educational software to full-time publisher of mainstream computer games and business software, it was time for



Spectrum screenshots from Dynamite Dan II, Biggles, Zythum and Strike Force Harrier

Mirrorsoft to turn its attention to the future.

US invasion

Having examined the games market in some detail (as it was, back in 1986), Jim Mackonochie realised that Mirrorsoft was too far behind the likes of Ocean and US Gold in the 8-bit arena. However, on the horizon was the new and exciting 16-bit market, which was growing quickly over in the United States thanks to the popularity of the Atari ST and the Commodore Amiga. Mirrorsoft decided to take a gamble, and made deals with a number of US publishers and developers, including Cinemaware, Spectrum Holobyte, Sierra, and Software Heaven's FTL, to bring 16-bit US titles into the UK and Europe.

Having successfully signed up the first batch of US games, Jim then was given permission to buy both Nexa Org (a small American games company based in San Francisco and owned by Gilman Louie) and Spectrum Holobyte (co-founded by Phil Adam), and merge them into one company called Sphere Incorporated. The deal made Robert Maxwell 80% owner of the new company, with Louie and Adams owning 10% each of the remainder:

"The relationship was that

each company had the first option to publish each other's titles in their respective territories, but under standard royalty terms, as both companies had to make their profit targets," says Jim. "So commercially it was 'arms-length', but there was a lot of co-ordination on development, particularly on Falcon, where Mirrorsoft managed the Amiga and ST versions."

Sphere Inc. published under the Spectrum Holobyte label, and the first product to emerge was indeed the F16 flight simulator, Falcon. The PC and Mac versions were handled by Sphere, whilst Mirrorsoft contracted Rowan Software to develop the ST and Amiga conversions. Falcon was a huge hit for Mirrorsoft in Europe, and two extra mission disks were subsequently published for the ST and Amiga – Operation Counterstrike and Operation Firefight. Mirrorsoft went on to publish a number of other Spectrum Holobyte titles in Europe, including Stunt Driver and Vette, both for the PC. However, neither of these titles emulated the success of Falcon in Europe.

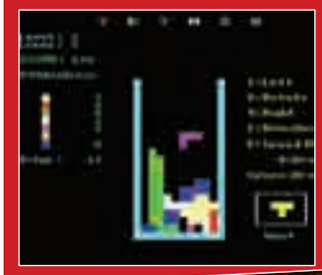
Falcon was such a big hit in the US that Spectrum Holobyte was approached to create a military training simulation for General Dynamics. Unfortunately, because it wasn't an official military contractor, it ultimately wasn't allowed to, but the technical specifications it had been given access to during the early exchanges were put to good use when it eventually developed Falcon 3.0 a few years later.

Mirrorsoft's next move was to sign publishing deals with Cinemawear and FTL. All of Cinemaware's titles were either homages to the Hollywood movies of yesteryear, or US sports titles. The movie-inspired

Accompanied by a massive manual, Falcon offered an amazingly realistic simulation of an F-16 fighter plane

Russian revolution

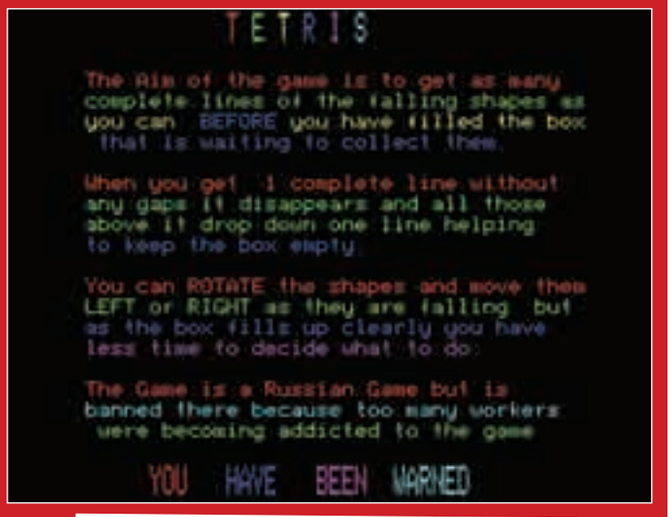
There can't be many games players around the world who haven't heard of Tetris. Created behind the old Iron Curtain by Moscow Computer Centre employee Alexey Pajitnov in 1985, this simple but extremely addictive game was originally inspired by the traditional puzzle game, Pentomino. Instead of using pieces made from five squares, Pajitnov's game used only four. This contributed to the name Tetris, which was partially derived from the Greek word 'tetra', meaning 'four'.



The addictive nature of Tetris has been attributed to its simple structure – trying to make the player create order out of chaos. Random blocks drop to the bottom of the screen, and it's the player's job to create perfect lines with no gaps by moving and rotating the blocks as they fall. The game then removes the perfect lines and leaves the imperfect ones in view, thus spurring the player on to remove all of his or her mistakes from the screen.

Tetris came Mirrorsoft's way via Andromeda Software's founder, Robert Stein, who first spotted the game whilst on a business trip to Hungary. The tale of how it was signed, and what happened to the console rights along the way is a complicated one. Suffice to say that at one point, there was a battle between Mirrorsoft and Atari on one side, and Nintendo and Bullet Proof Software on the other, with the Russian Government somewhere in the middle!

Mirrorsoft developed the home computer versions of Tetris for the C64, CPC, Spectrum, ST and Amiga in 1988. It also published the Russian PC CGA version throughout Europe. But it lost out on the console and handheld rights which would have proved to be exceptionally lucrative. In the US, Spectrum Holobyte insisted on having a new PC version of Tetris that utilised EGA/VGA graphics. This was coded by John Jones-Steele, based on his own source code from the Amiga version.


TETRIS
The Aim of the game is to get as many complete lines of the falling shapes as you can BEFORE you have filled the box that is waiting to collect them.
When you get a complete line without any gaps it disappears and all those above it drop down one line helping to keep the box empty.
You can ROTATE the shapes and move them LEFT or RIGHT as they are falling but as the box fills up clearly you have less time to decide what to do.
The Game is a Russian Game but is banned there because too many workers were becoming addicted to the game
YOU HAVE BEEN WARNED

You have been warned! The BBC Micro version highlights the dangers of Tetris dependency

It Came From the Desert and its data-disk sequel, Ant Heads. Just two of Cinemaware's games published in Europe by Mirrorsoft

games included Defender of the Crown, It Came From the Desert, Rocket Ranger, Wings, Sinbad and the Throne of the Falcon and King of Chicago. The TV Sports games included American Football, Basketball, Baseball and Boxing. There were also discussions concerning a possible TV Sports Soccer game (or football as the remaining 90% of the world calls it), but Cinemaware went bust before those discussions came to anything more concrete.

FTL was the games label of Software Heaven Inc, a US software publishing company which had already had one hit in the US with Sundog: Frozen Legacy, a science-fiction strategy game for the ST and Apple II. Its European distribution deal with Mirrorsoft was initially for two titles – Oids and Dungeon Master. Oids was similar in concept to Firebird's arcade classic Thrust, with a dash of the Williams' coin-op Gravitar thrown in for good measure. Thrusting, rotating, shooting and landing (to rescue the eponymous Oids) made for a simple yet addictive arcade game.

Mirrorsoft secured the publishing rights to FTL's Oids and Dungeon Master. Both games were commercial and critical hits

However, it was Dungeon Master (known simply as DM to its fans) that really took the gaming world by storm. This was a first-person fantasy role-playing game, set deep inside a dungeon stuffed to the gills with treasure, traps, magic and monsters. Dungeon Master was initially published for the Atari ST, but inevitably an Amiga conversion appeared the following year. DM also spawned a sequel, Chaos Strikes Back, and inspired a whole host of similarly styled games from other publishers and developers (including SSI's official D&D-based Eye of the Beholder series, and Westwood Studio's Lands of Lore).

Licence to thrill

Image Works published a handful of film-licensed arcade games, including Back to the Future Part II, Back to the Future Part III, Predator 2 and Alien 3.

Both Back to the Future titles were multi-part arcade games with sections based on memorable scenes from the films. Part II was written by Images Ltd, with Probe coding Part III (with more success). Probe was also responsible for Alien 3, while Predator 2 was given to Arc Developments. For Alien 3, Probe Software kept the look of the film (including all of the identical shaven-headed characters), but wisely ignored the plot by including multiple aliens and giving Ripley a wide selection of guns.

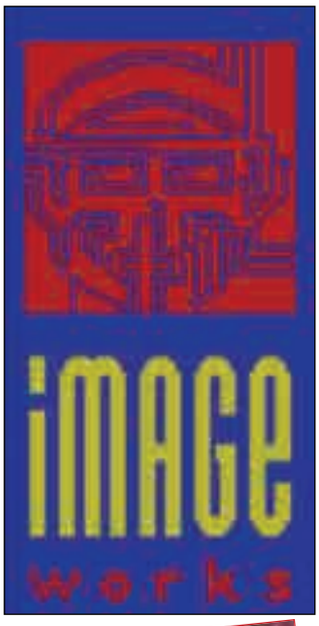
All of the film licences came to Mirrorsoft via US agent Dick Lehrberg, who specialised in software licensing and had many contacts in Hollywood. Some of the film scripts that Mirrorsoft passed on included Tim Burton's Edward Scissorhands and Universal Soldier (starring Jean-Claude Van Damme and Dolph Lundgren). Universal Soldier was later published by Accolade.

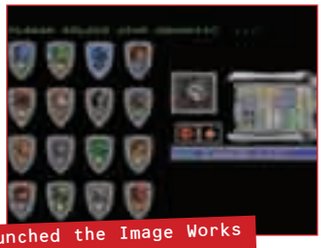
Image Works secured the rights to a whole host of movie licences, including Universal's Back to the Future II

Success story

Thanks to the quality of the games that it signed up from the US, Mirrorsoft's gamble paid off. In addition to Falcon, the Cinemaware and FTL titles were also huge hits in Europe, and these successes helped to transform Mirrorsoft into a major player as the popularity of the ST and the Amiga increased in the late 80s. For the first time, Mirrorsoft was ahead of the game.

Fuelled by this success, Mirrorsoft bought Coventry-based developer and publisher Personal Software Solutions (better known as PSS) in 1987. It used the label to publish strategy titles like Waterloo and Austerlitz (by Dr





New boss Peter Bilotta launched the Image Works label, home to a glut of great games

Peter Turcan), JRR Tolkien's Riders of Rohan (written by US developer Spinnaker), Harpoon (developed by another US company, Three Sixty), Conflict Europe and The Final Battle (sequel to Rainbird's Legend of the Sword). PSS also developed its own major fantasy project, called Battle Master, which was published for the ST, Amiga and eventually, the Sega Megadrive. The plan was to use PSS to develop many more strategy titles, but Battlemaster turned out to be PSS's final game.

In 1988, Jim Mackonochie relinquished control of Mirrorsoft to Peter Bilotta, freeing himself to set up a new Maxwell Communications company, called Pergamon Compact Solution. PCS was created to focus on the development and publication of CD-ROM titles, ultimately producing a CD-ROM port of Defender of the Crown (allegedly the first ever PC CD-ROM game) amongst more general multimedia titles. Unfortunately, PCS was closed down by the Maxwell Communications Group in 1990, and Jim Mackonochie took his multimedia expertise to other companies on a consultancy basis.

Peter Bilotta, meanwhile, helped to create the Image Works brand in 1988. With the Mirrorsoft label best known for Fleet Street Editor and imported US games, it was time to create a new publishing label for UK-developed titles. Over the next four years, the Image Works label published a wide variety of games across all of the major formats, including classics such as Bombuzal, Gravity and Bloodwych.

Bombuzal was an isometric puzzle game for the C64, ST and Amiga written by veteran coder Tony 'Ratt' Crowther and friend Ross 'The Wyvern' Goodley. The game was co-designed by David Bishop, and guest starred a number of other programming legends who designed levels for the game, including Jon Ritman, Jeff Minter, Geoff Crammond and Andrew Braybrook. To complete each level, the player had to destroy all of the destructible tiles using a number of bombs of varying destructive power, without getting blown up.

Gravity was an underrated 3D strategy game from Ross Goodley, featuring graphics by Pete Lyon. The player took control of mankind's forces against the threat of the 'Outies', an alien race that lived off energy by inducing stars to collapse and form Black Holes. The objective of the game was to eradicate the entire Outie fleet, or turn their Sun into a Black Hole before they did the same to yours. Played in a small section of the Milky Way galaxy, there were 128 solar systems to explore. To succeed, the player had to find suitable planets, colonise them and attempt to locate the Outie's home system.

Canned!

Over the years, Mirrorsoft had to cancel a number of games in development for a variety of reasons. These included:

Terrarium

This was a Dungeon Master-style game set inside a giant Terrarium. The game design started off as a 2D arcade adventure, but was switched to a pseudo-3D environment mid development. Unfortunately, this change only made things worse, and after going through a couple of Project Managers trying to make the game work, Mirrorsoft decided to cut its losses and cancelled the game in late 1990.

DDT

Designed and coded by John Knox, DDT (aka Dynamic Debugger) was an extremely colourful Amiga arcade platform game that utilised the Amiga's high-resolution Hold and Modify mode (aka HAM). Unfortunately, developments were few and far between and after an initial spurt, the game failed to materialise.

Crime Town Depths

Based in Italy, Emotion Software was creating an epic futuristic game for the Amiga, set on the alien planet of Murdrum. Unfortunately, the game didn't progress very far at all (although a trailer disk for the Amiga was released in 1988) and was cancelled soon after.

Work-in-progress screens from the unreleased Crime Town Depths, Emotion Software's ambitious Amiga game

The Bitmap Brothers blew the 16-bit scene away with a series of stunning titles

Bloodwych was written and designed by Anthony 'Tag' Taglioni, his brother Philip and his friend Pete James. The game was superficially similar to Dungeon Master, but had an innovative simultaneous two-player option, along with the ability to communicate with other creatures in the game. Initially released for the ST and Amiga, Bloodwych was also converted to run on the Spectrum, CPC, C64 and IBM PC. An add-on pack (Bloodwych Data Disks: Vol 1) was released for the ST and Amiga the following year.

Other Image Works titles included Flip It & Magnose, Cisco Heat, Robozone (which was based on an idea for a TV series that never happened), Devious Designs, Sky Chase, Foxx Fights Back, Blade Warrior, Fernandez Must Die, Phobia, Passing Shot, Blasteroids, Interphase, Mega-Lo-Mania, First Samurai, Theme Park Mystery and Brat! Not all of the titles were massive sellers, but they helped establish the Image Works brand as a label with a diverse range of games. However, most of these games were overshadowed by the popularity of those from one particular developer. Step forward the Bitmap Brothers.

Brothers in arms

The Bitmap Brothers originally consisted of just three people: Steve Kelly, Mike Montgomery and Eric Matthews. Its first release was the vertically scrolling shoot-em-up Xenon, published by Melbourne House for the ST and Amiga in 1988. It then signed up with Mirrorsoft to produce four titles for Image Works – Speedball, Xenon 2: Megablast, Speedball 2: Brutal Deluxe and Cadaver.

Speedball was a futuristic sports game which was partially inspired by the 1970s' movie Rollerball. The game won the coveted Golden Joysticks 'Game of the Year' award in 1989 and spawned the inevitable sequel (Brutal Deluxe) in 1991. The sequel added improved graphics, rudimentary football management-style features and masses of other tweaks and enhancements. Xenon 2: Megablast was the follow up to the Bitmap's first 16-bit game. It was a vertically scrolling shoot-em-up with four distinct levels of arcade blasting. The game was initially released for the ST and Amiga, with PC and console conversions following soon after. Cadaver gave the Bitmap Brothers the chance to try its hand at an arcade adventure. Employing an isometric view, Cadaver included a system that allowed players to move around, fight, and pick up or drop items using nothing but a joystick.

The Bitmaps had a high media profile during this period, with plenty of publicity photos appearing in the computer magazines. It also built up a large and very loyal following, thanks mainly to the consistent quality of its games. By then, it had also started using the visual talents of Dan Malone and the musical talents of Richard Joseph.

Once Cadaver was completed, the Bitmaps parted company with Mirrorsoft and created a publishing label of its own called Renegade. The computer press painted the split as acrimonious, but the reality was that the Bitmap Brothers had completed its contractual obligations with Mirrorsoft and was free to go in whatever direction it wished. Peter Bilotta said at the time: "We wish them the very best. They really are a tremendously talented team and I'm sure they'll succeed. I think they may discover some of the constraints that publishers work under, now that they're doing it themselves."

Renegade went on to publish a number of other Bitmap Brother games, including Gods, Magic Pockets, two Chaos Engine games and a data disk for Cadaver called The Payoff. The label also published titles from other developers, including the Sensible Soccer series and Uridium 2, amongst others.

Turtle power, dudes

In 1990, a deal was struck between Mirrorsoft and Konami, giving both companies the rights to release certain titles in their respective markets.

Konami published a diverse range of Mirrorsoft titles in the US, including Riders of Rohan, Predator 2, Theme Park Mystery, Bloodwych and The Killing Cloud. Mirrorsoft, on the other hand, published Bill Elliot's NASCAR Challenge and also converted Konami's NES game Teenage Mutant Ninja Turtles to home computer formats. It was this game that proved to be an extremely lucrative title for Mirrorsoft.

The title of the game had to be changed slightly (as did the TV series) from Teenage Mutant Ninja Turtles to Teenage Mutant Hero Turtles in the UK, due to concerns about the possible connotations of ninjas and their weapons and fighting style. Quite how changing the name made any difference was anyone's guess.

The first conversion of TMHT

The first TMHT game was a massive seller on the 8-bit platforms

to be released via the Image Works label was for the Spectrum. Developed by Dave Perry for Probe Software and released in early November 1990, the Spectrum version sold a staggering 420,000 copies in one month! All of the remaining versions of TMHT were published in time for Christmas and the title became a huge seller for Image Works. The only slight hiccup involved the code sheet that was included in the box. Upon loading the game, the player had to input a code from the sheet before the game would start. The codes were printed in black on dark red paper so they couldn't be easily photocopied. Unfortunately, some sheets were printed with a much darker shade of red, so even legitimate players couldn't get into the game because they couldn't read the codes.

The next year, Image Works and Probe Software worked on another Teenage Mutant Hero Turtles game, but this time it was a conversion of the four-player Konami coin-op. This was a much better game than the previous year's effort, giving players a sideways-scrolling beat-em-up based on pizza-loving reptiles.

Shattered Mirror

Mirrorsoft was working on a number of key titles when Robert Maxwell disappeared off his boat on 5th November 1991.

Immediately after he disappeared (but before it was confirmed that he was dead), everything at Mirrorsoft continued as normal. Image Works had just published First Samurai, Mega-Lo-Mania and Teenage Mutant Hero Turtles – The Coin-op, and it was looking forward to a successful period of sales over Christmas. Mirrorsoft's recently launched Arena label was also in the process of converting a number of existing Image Works titles (including Battlemaster, Predator 2, Speedball and Xenon 2) to a range of consoles.

However, by the end of November, administrator Arthur Andersen was appointed to sort out the entire Maxwell Communications Empire, which obviously included Mirrorsoft. The moment the administrators arrived, they took over the day-to-day running of the business. Employees and developers alike weren't sure if they were going to get paid, and the administrators immediately stopped the Mirrorsoft sales department from selling anything, thus cutting off the company's only source of revenue.

Just some of the titles that were to be published by Mirrorsoft before its collapse

Throughout early December, a few hasty visits were organised from potential buyers, including French publisher Infogrames and US-owned MicroProse. Spectrum Holobyte in the US was also investigated, and Gilman Louie had to borrow US$300,000 from 'Wild' Bill Stealey (then owner of MicroProse) to help buy back the company from Maxwell's ownership. This was however, only a short-term solution, and so further funding had to be sought from a number of other sources, including Hollywood film studio Paramount Pictures. Just a few years after these events, Spectrum Holobyte ended up buying MicroProse.

Back in the UK, a management buy out for Mirrorsoft was briefly discussed, but time and money restrictions meant that it was highly unlikely to happen. In the end, the administrators needed to generate money quickly, and the speediest option was to close the company down, break up the assets and get as much as they could for it.

All but a handful of Mirrorsoft staff were made compulsorily redundant by the administrators on New Year's Eve, 1991. The remaining few were kept on for the next month or two to help wind the business down. This included selling parts of the business assets to the UK branch of US publisher Acclaim.

Picking up the pieces

Mirrorsoft's sudden and unjustified demise had severe repercussions for the staff (who naturally found themselves out of a job) and also for the developers and other associated companies, all of whom ended up joining the long queue of creditors who were owed varying

Mirror Image

In 1990/91, Mirrorsoft decided to enter the budget market by creating a new publishing label specifically for 16-bit budget releases. Called Mirror Image, it initially published a number of its own back catalogue titles, including Waterloo, Austerlitz, Bloodwych, a smattering of Cinemaware games, the original Speedball, Sky Chase and a number of key titles from other 16-bit publishers including Starglider 2 and Carrier Command from Rainbird, 3D Pool from Firebird, and Federation of Free Traders from Gremlin. Most of the budget releases had a Mirror Image screen (created by in-house Mirrorsoft artist Alan Tomkins) added to the start of the boot sequence, along with new on-disk protection (where appropriate) provided by Rob Northern.

The games were published in slim, pale blue cardboard boxes and were strictly 16-bit only (ST, Amiga and PC). Each game sold for £9.99 and was released with a special 'Buy 3 and get 1 free' offer.

Bloodwych was one of a number of titles re-released on Mirrorsoft's own budget label

Missing in action

Following the demise of Mirrorsoft, the developers of the various work-in-progress games were free to take their titles to other publishers, and many did. Unfortunately, two games vanished without a trace, never to be seen again. They were Drop Soldier, by Ross Goodley and Pete Lyon, and Duster, by Realtime Games and Rowan Software.

Drop Soldier

Drop Soldier was an unofficial sequel to Image Work's Gravity, and was again being designed and coded by Ross Goodley for the Atari ST. The game design was partially inspired by Robert Heinlein's classic sci-fi novel Starship Troopers. The 'power suits' that soldiers used in their fight against the 'Skinnies' and the 'Bugs' in the novel, found their way into Drop Soldier, giving players the ability to fly over 3D landscapes and blast aliens to kingdom come. When they weren't flying, they could also walk around inside 3D buildings and collect useful items.

Drop Soldier was designed to be mission based. The player took a small team of futuristic soldiers into battle against an 'Outie' invasion. Each character had their own specialist capabilities, and it was up to the player to choose who to take with them on each mission. Other (human) players would be able to join in by connecting to the 'host' computer via null modem or dial-up.

The visuals were again drawn by Pete Lyon, and included some amazing character portraits, especially when you consider that he only had a 16-colour palette on the ST to play with!

Various images from Drop Soldier drawn by Pete Lyon

Duster

Realtime Games had just finished all of the various conversions of Carrier Command (for Rainbird) when it signed up with Image Works to create Duster. The title was only ever meant to be temporary, but the name was never changed.

Duster was a game all about crop dusting on an arid, alien world infested with giant bugs. The player had a 'duster' ship that they would eventually be able to upgrade with new weapons, hulls, shields, etc. They would get money for blasting the bugs and preserving the crops.

Realtime had the basic 3D engine up and running quickly. It also had a couple of static screens and a basic drop-down menu system in place for the management part of the game. Unfortunately, one of the programmers (and a founding member of the company) left mid-way through development. Realtime struggled to continue from that point onwards, and eventually had to admit defeat.

At this point, Mirrorsoft invited Rowan Software to step in and take over the development of the game. Rowan had recently finished Flight of the Intruder, and had already started writing Reach for the Skies. Despite all this it agreed to take the job on and produced a couple of new development versions before Mirrorsoft's demise killed off the game completely.

amounts of money. Despite the fact that all of this happened nearly 13 years ago, creditors are still receiving letters from the administrators about Mirrorsoft even now.

The bottom line was that the company was sacrificed to help resolve the bigger financial problems caused by the death of Robert Maxwell. Mirrorsoft was running as a profitable business when it went into administration, but in hindsight it's obvious that other agendas meant that the company didn't stand a chance of surviving once the administrators stepped in.

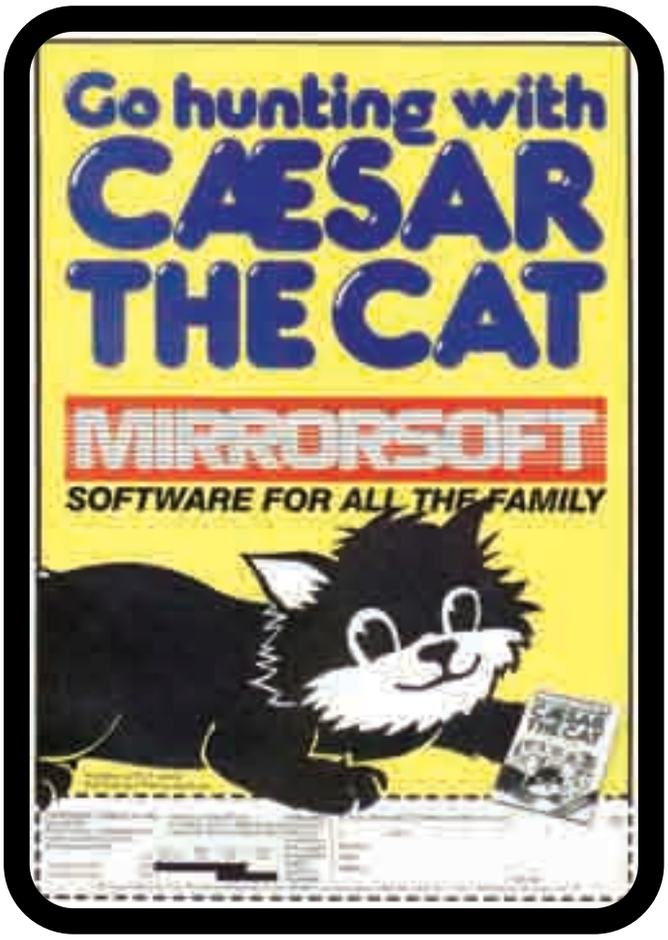
The company was turning a creative corner just as the rug was pulled out from under its feet. With the Bitmap Brothers a slowly fading memory, Mirrorsoft had lined up a number of impressive titles for 1992. Sensible Software's own Sensible Soccer series went on to enormous success (with Renegade as the publisher), as did Cannon Fodder (which had barely been started when it was a Mirrorsoft title) for Virgin Games.

Besides Cannon Fodder, Virgin Games also signed Reach for the Skies (from Rowan Software), Lure of the Temptress (from Revolution), Apocalypse (by Jason Perkins) and the Amiga version of Alien 3 (from Probe). It was certainly no coincidence, as a number of employees from Mirrorsoft moved to Virgin Games soon after the company's demise, including Mirrorsoft's Head of Development Jon Norledge, Producer Dan Marchant, and Chief Operating Officer Sean Brennan, to name a few.

Mindscape International published Legend (from the creators of Bloodwych) to great success in 1992, and also published its sequel Son of the Empire a year later. By then, Jim Mackonochie had joined the firm as European Sales and Marketing Director.

All of the ex-Mirrorsoft games were critical and commercial successes for their new publishers, and that would surely have been the platform needed to push the company forwards, had events elsewhere not conspired against it. Mirrorsoft had also dipped a corporate toe into the console market and had a number of console conversions lined up and ready to go. Furthermore, the company was already catering for the emerging VGA/MCGA PC games market – a market that would have put Mirrorsoft in a strong position in the early 1990s, had the company survived. RG*

Thanks must go to the Mirrorsoft crowd for their help in researching this article. However, special thanks must go to Jim Mackonochie for his help, which was always above, and way beyond, the call of duty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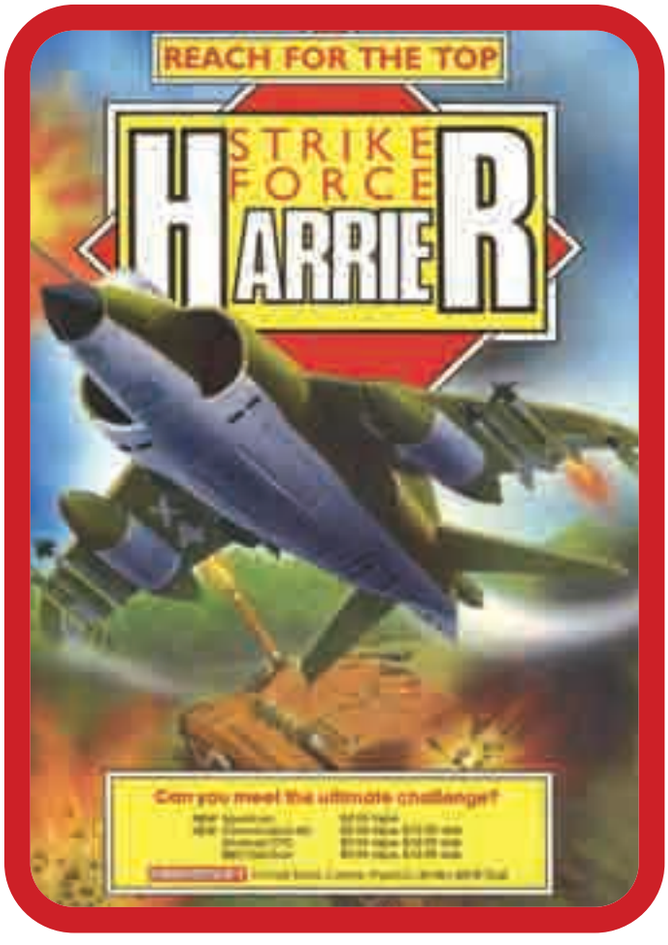
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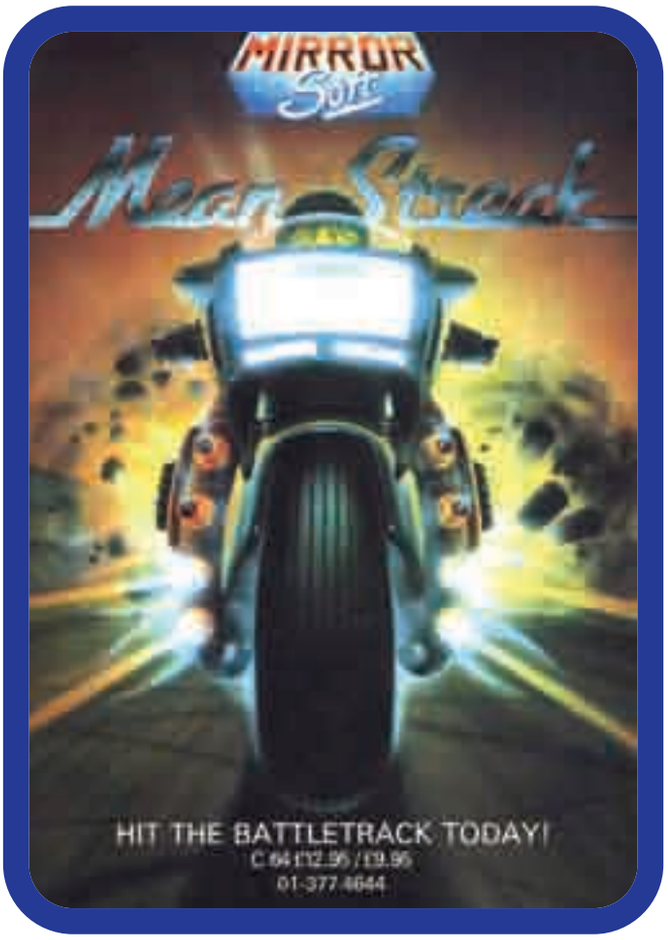
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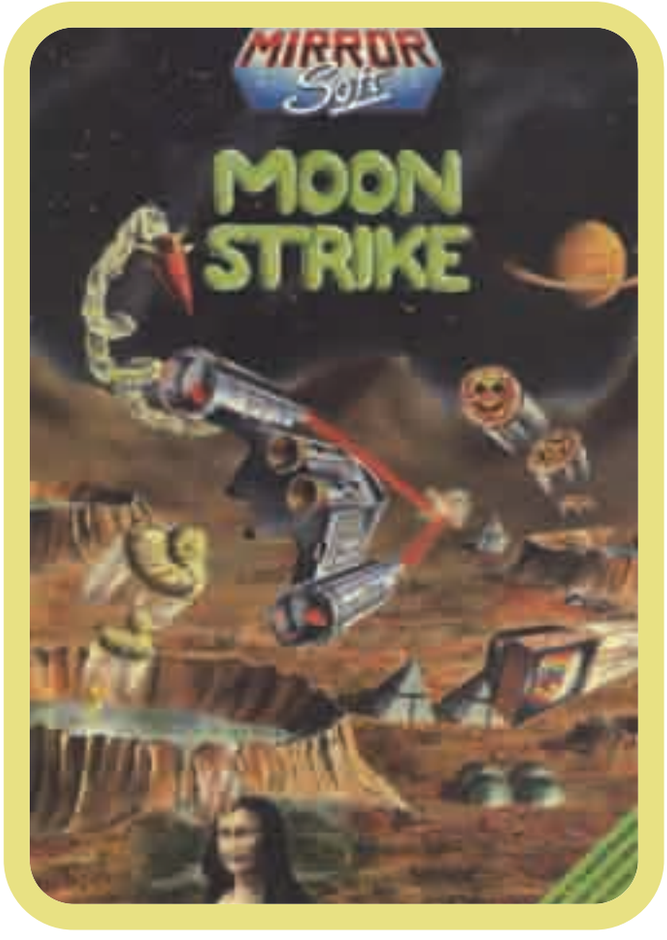
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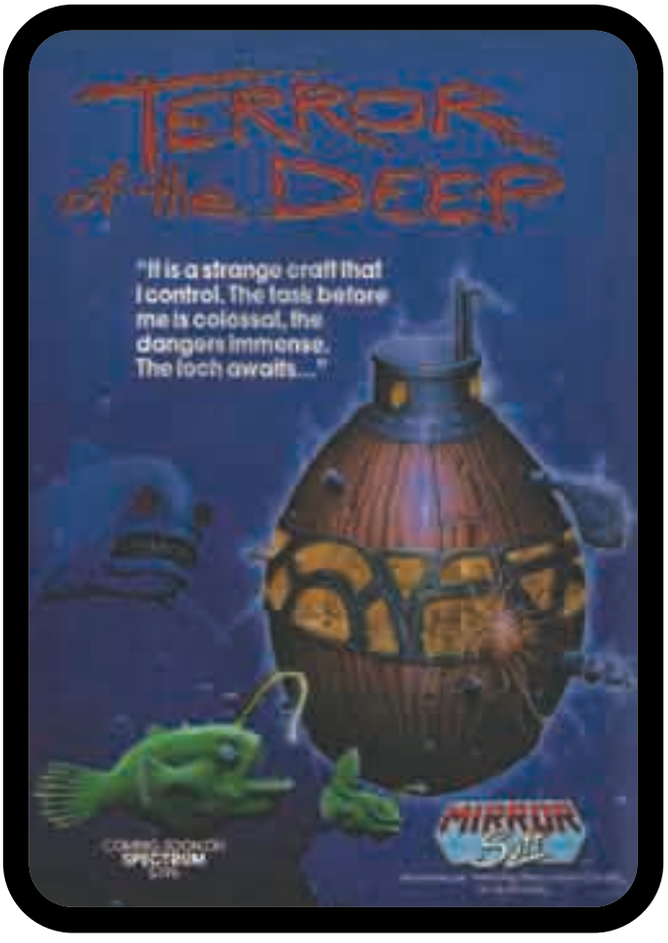
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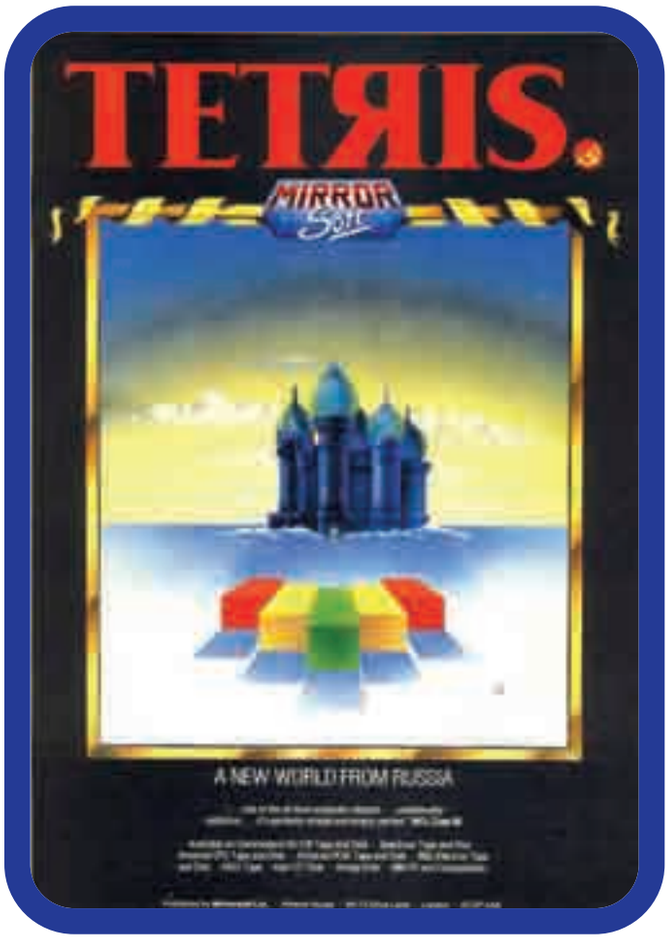
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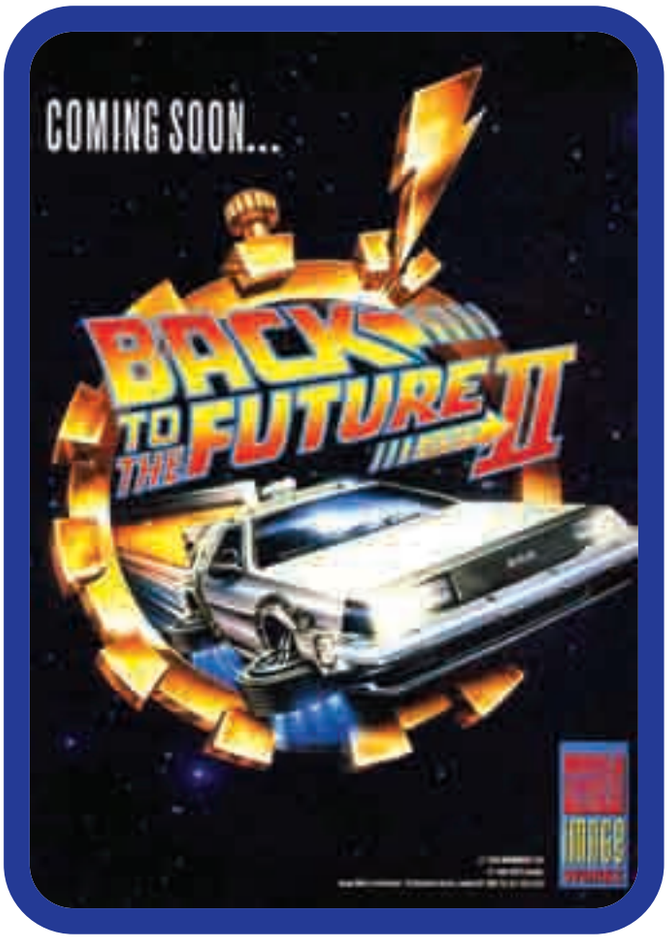
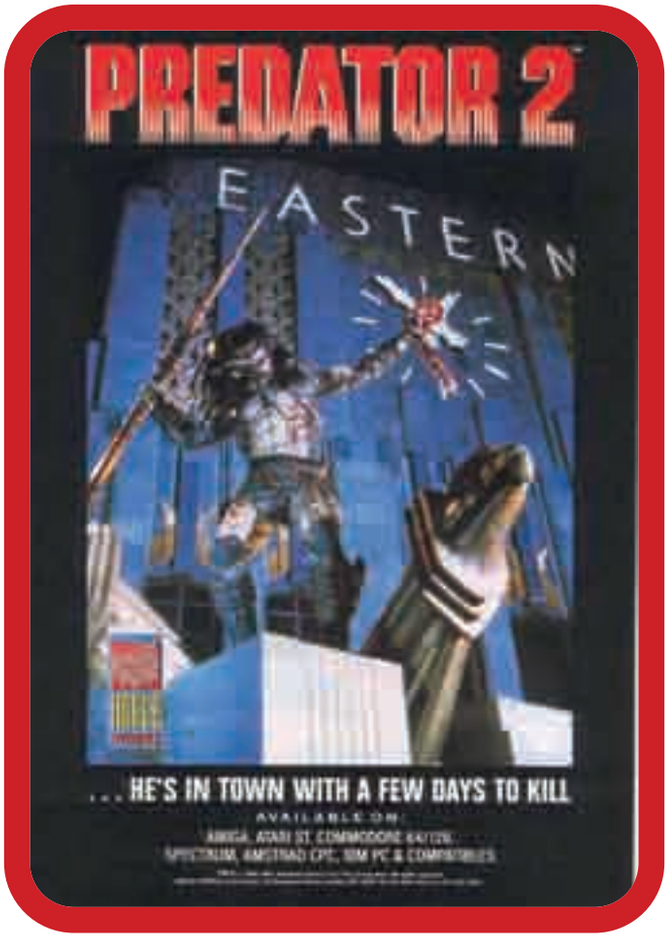
MUST BE SAVED!
MIRROR Soft


COMING SOON...
BACK TO THE FUTURE II
IMAGE WORKS

COMING SOON...
BACK TO THE FUTURE III
IMAGE WORKS

Bloodwych
DISCUTEZ ! MARCHANDEZ !
MENTEZ EFFRONTÉMENT !!!


PREDATOR 2
EASTERN
... HE'S IN TOWN WITH A FEW DAYS TO KILL
AVAILABLE ON

COMING SOON
SPEEDBALL
AVAILABLE ON CBM 64/128 NOW!

SPEEDBALL 2
BRUTAL DELUXE
IMAGE WORKS

TEENAGE MUTANT HERO TURTLES
COWABUNGA!!
THE HEROES IN A HALF SHELL™ ARE COMING!
KONAMI

TEENAGE MUTANT HERO TURTLES
THE COIN-OP!
THE RETURN OF THE AWESOME FOURSOME!
KONAMI

Retro coverdisc

If you're a fan of retro remakes for your PC then our ninth coverdisc is sure to appeal, as it features all 76 entries in this year's Retro Remakes Competition (organised in conjunction with the www.remakes.org website). Speaking of contests, we also have every entry to the Interactive Fiction Competition 2004. So whether you're into arcade action or more cerebral adventuring, there's something for you on this month's disc

step 1 Place the coverdisc into your CD/DVD drive and it should start automatically. If not, select Run from the Start menu and enter D:\browser.exe (assuming that D: is the letter of your CD/DVD drive). When the browser appears, click OK to accept the declaration.

step 2 Some games/programs are provided as .exe files and these will run or install straight from the disc. If the program chooses to install itself, simply follow the onscreen prompts and then wait while the files are copied to your hard drive.

step 3 Many games/programs are stored in .zip files, so you might need an archive manager like WinZip, which is under the Utilities browser tab. Extract all the files from the .zip archive using the Extract feature and place them in an empty folder, then run the .exe file.

step 4 If you are looking for a particular program, click the Search button and enter a keyword. The browser program will search the disc and place all the relevant results under the left-most browser tab. They can now be accessed directly from here.

Problem solving

If you're having a problem with a particular program on our coverdisc, please view the help file in the program for assistance. You might also consider visiting the website of the program author for further help. If this fails, please email: *techsupport@livepublishing.co.uk.*

If you are having problems with the CD, first check that it is not dirty or scratched. CDs can be cleaned by holding them under the cold water tap and gently rubbing the silver side with a tissue. Dry it carefully with another tissue.

If the disc still doesn't work, then it may be faulty. Faulty discs should be returned to Retro Gamer, Live Publishing International Ltd, Europa House, Adlington Park, Macclesfield, Cheshire, UK, SK10 4NP. We will replace all genuinely faulty discs.

Coverdisc helpline

01625 855 051

techsupport@livepublishing.co.uk

(Monday-Friday 10am-4pm)

Helpline for coverdisc problems only

DISCLAIMER

Some of the programs on the Retro Gamer disc interact with your PC on a fundamental level. We strongly advise you back up your personal data before using the disc. Due to the way the Retro Gamer disc is compiled, Retro Gamer, Live Publishing International Limited and/or any associated company and/or individual cannot take responsibility for damage to your PC or otherwise arising from use of the coverdisc. You use the programs on the disc at your own risk.

Retro Remakes Competition 2004

With all 76 entries to this year's competition submitted and ready for reviewing, we spoke to Steve Phelps (aka The Toker), part of the team that maintains the www.remakes.org website

Retro Gamer: First of all, please tell us a little about the history of the Retro Remakes website.

Steve Phelps: Retro Remakes was started by [JJ] back in early 2001 as the remakes scene was just starting to flourish. Teams like Retrospec were starting to make a name for themselves, as were one or two others. His idea was to provide people with a one-stop website for news and downloads of the latest releases. [JJ] ran the site for well over a year single-handedly before Hitm4n came along and helped him by becoming the main news hound.

Having been a visitor to the site for some time I decided to see if I could help out with hosting the site, and I had my arm snapped off by [JJ]. Flynn joined as another news hound around the same time. Shortly afterwards [JJ] decided to quit due to personal reasons and handed the reigns to me.

During last year's competition we stumbled across the talents of STompy who we hastily brought onto the team as resident PHP guru and all-round good guy. Most of the clever stuff you see on the site these days is down to him.

RG: Moving onto the competition. Were you expecting to receive over 300 registrations?

SP: It shocked us to be honest. In the end we managed 322 pre-registrations. I never in my wildest dreams imagined we would achieve that many. Unfortunately it didn't turn into 322 entries, which saw Flynn breathe a sigh of relief because he no longer had to write 322 reviews in his native French and then translate them.

RG: How difficult was it this year to drum up the prizes?

SP: Initially very difficult, and without STompy's intervention and help, this year's competition wouldn't have happened. I started off with big ideas and sent letters to some top companies explaining all about the competition and what we could offer in return. I have not had a single reply to over 15 letters to this day. I was close to giving up but then STompy stepped in and helped motivate me. Between us, and with the help of forum regulars such as The Caffiene Kid and NWC Omega, we grabbed over £4,000 worth of prizes from some generous sponsors.

The Retro Remakes website acts as a hub for the whole remakes community, attracting thousands of visitors each week

RG: From what you've seen so far, how do you rate the quality of this year's entries?

SP: People saw the quality of the remakes that took the prizes last year and knew what to aim for. We all tried our best not to play any of the early entries and for the most part we all managed that, but now the deadline has passed the general consensus seems to be that the quality of this year's entries is top notch. In fact there are one or two corking games even we didn't know were being entered.

RG: Who judges the competition, and when will the results be announced?

SP: The games are judged by all four members of the Retro Remakes team. We will each make up 25% of the entries' overall score. We all have a different background in remakes and game playing, so the scoring is bound to be varied and open for debate. In our opinion that is the best way to get a true result. The results will be announced on the www.remakes.org website on 1st December 2004.

RG: What hopes do you have for the future of both the website and the competition?

SP: Retro Remakes will undergo a much needed facelift during the coming months. We have so many ideas to make the site better, and what with the workload generated by the competition, we just haven't had the time to finish them off to the standard we would like.

It wouldn't be a remakes competition without a Jet Set Willy clone. Here's Smila's entry, subtitled The Trash of the Universe

We would like to breach the gap between the remakers and the publishers of the software they use, provide tutorials and code snippets, expand the user's experience on the site, and provide a repository of games where you can download every remake ever made.

As for the future of the competition, of course we would like to run one next year, but it depends on whether we can gather in the prizes once more. And besides, we haven't even had a chance to finish marking all the entries from this year's yet. So yes, I suppose you could say you can pencil one in for the summer of 2005. Otherwise the site regulars will only pester me...

*If you want to discuss the entries with other gamers, visit **www.remakes.org** and click on the forum link. There's a forum dedicated to the competition where you can leave feedback, discover playing tips, report bugs and more.*

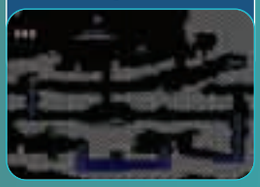
A wide range of original games have been remade for the competition. Seen here is Trans Oz, a 3D remake of Ultimate's Tranz Am

RETRO REMAKES

For your perusal – all 76 games plus grabs

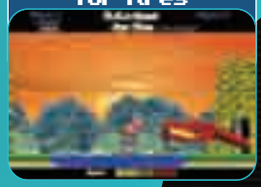
Castle Awesome

Complex X



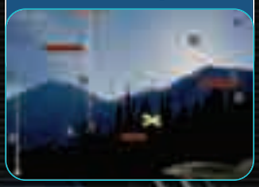
Stupid Ape

B.C's Quest for Tires

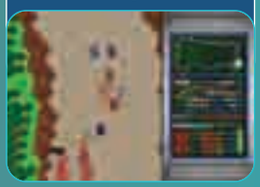


Not Everyone's a Wally

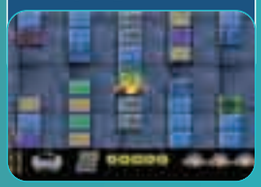
Thunderpac



F-1 Spirit



Jumping Jackson

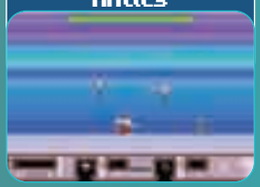


Dizzy Remake

Legend of Shadow

Beach-Head

CJ's Elephant Antics



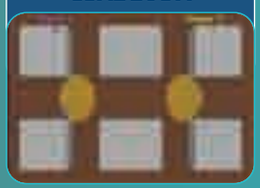
Manic Miner 30321

Back To Aztec

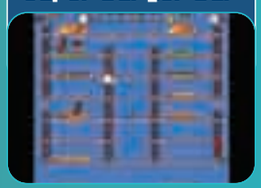
Push Push Penguin

Break Free

Combat Dx



Super Burger Bar

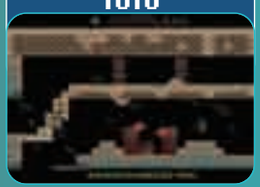


Starion 2010 Updated

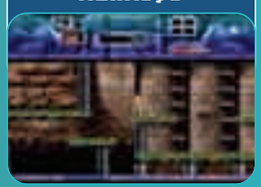
ANSI Shinobi

Blaster: 2085

Jet Set Willy: TOTU

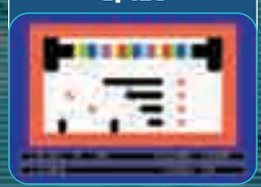


Hawkeye

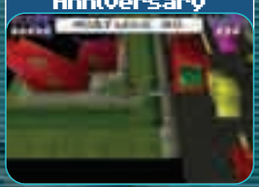


Ewo's Adventure

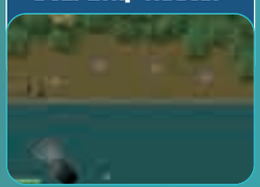
Splat



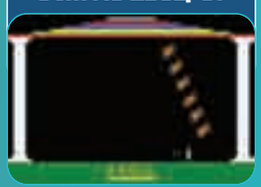
Trashman Anniversary



Starship Hector

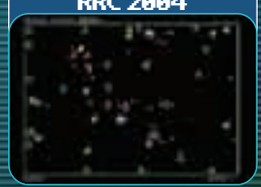


Still No Escape!

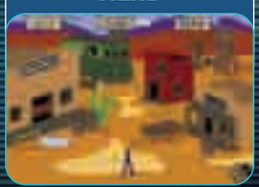


Football Manager

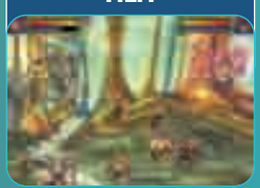
Robotron: RRC 2004



Kane



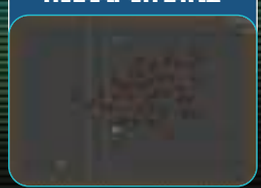
Nam



Cosmic Tunnels

Adventure

Robotron Blitz

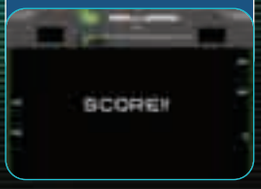


Point X

Balls Too

Mooncresta

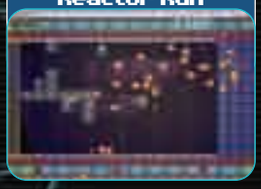
Ball Wars



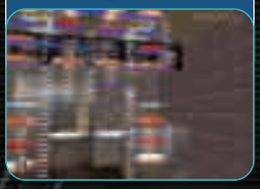
Curse Of The Aztec Tomb

Tranz Oz

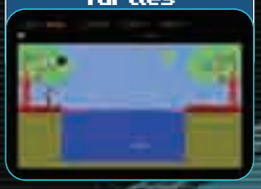
Android1: The Reactor Run



Burgerland



The Purple Turtles



Stop The Express

Potty Pigeon (1)

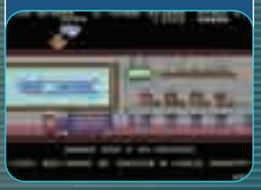
Paragon DX

rE/Generation

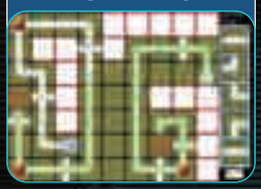
Potty Pigeon (2)

Joe Blade 3 Remake

Comic Bakery



Pipe Crazy



Retro River Raid

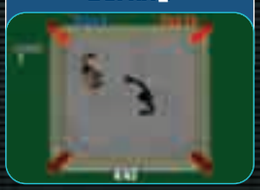
Timebomb

The Birds and The Bees

Alien Kill

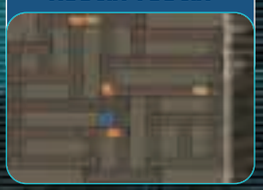
Arcadia – Particle Experiment

Boxing

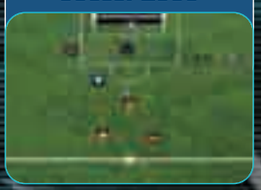


Sir Lancelot

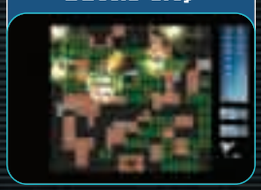
Rootin Tootin



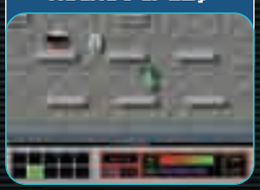
Soccer2600



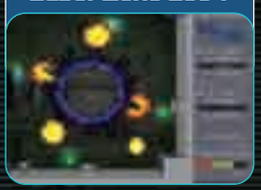
Battle City



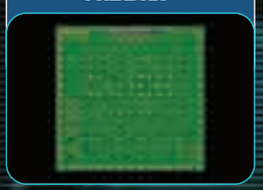
Rocket Crazy



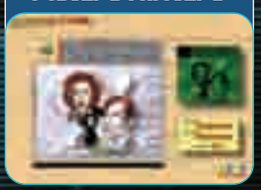
LaserZone 2004



Nibbler

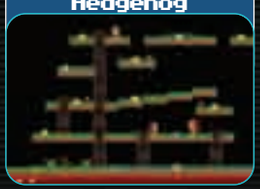


Picture Mixture



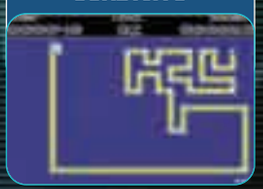
BattleField

Herbie the Hedgehog



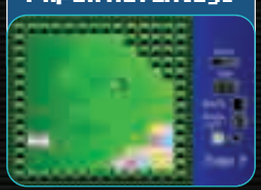
P8NG

Sensitive

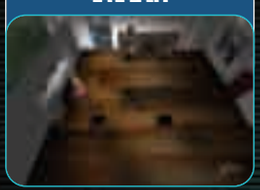


Depth Charge

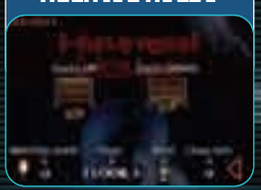
Flipull Advantage



Sleuth

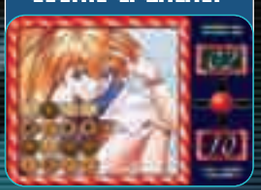


Haunted House



Room Ten

Cookie Cruncher



Interactive Fiction Competition 2004

Running at the same time as the Retro Remakes Competition is IFComp 2004 (http://ifcomp.org), a quite different competition for short text adventures which is now in its tenth year. We spoke with organiser Stephen Granade

Retro Gamer: Can you tell us more about the IFComp. When did it start and what was the thinking behind it?

Stephen Granade: It began in 1995, shortly after Graham Nelson released his language Inform. There wasn't a large pool of example code at the time, and readers of the Usenet newsgroup rec.arts.int-fiction wanted to do something about that. Someone suggested a competition to encourage the creation of short works of interactive fiction in Inform.

Kevin Wilson, an undergraduate at Berkeley, took that idea and ran with it. There was a lot of discussion on the newsgroup about how the competition should be structured. In the end, Kevin planned a simple competition with one rule: every entry had to be winnable in under two hours. He divided the competition into two categories – one for games written in Inform, the other for games written in TADS. The judging rules were just as simple. Anyone could vote. All they had to do was play all the games in one of the divisions and then vote for their top three choices.

That year 12 games were entered. The competition was a success – people on rec.arts.int-fiction discussed it for weeks, and it engendered a lot of talk about what made for a good short game.

RG: How has the competition evolved since then?

SG: There are more rules, for one thing! As far as the competition's structure goes, there aren't any divisions any more. All games compete against all other games. Instead of voting for their top three games, now judges rank each game on a scale of one to ten.

Socially, it's become an important event in the life of the interactive fiction community. The competition as a whole has grown. The first year we had 12 games; in 2001 we had 51. This year we have 38 – a large but not too unweildy number. We've had companies donate monetary prizes, including one year during the height of the dot-com era when a company called Bedouin donated five $200 prizes.

RG: Do you feel the standard of entries is continually improving?

SG: Not improving, but changing. Every year we have entries that aren't very good by anyone's standards, and that never seems to change. But then we do always seem to have a couple of outstanding works, some of which are incredibly inventive.

RG: How does the voting system work?

SG: To judge, you have to play and vote on at least five games. You play each game for a maximum of two hours, and then give it an integer score from 1 to 10, with 10 being best and 1 being worst. After all of the votes are in, we average the scores. The games are then ranked by which one has the highest average score.

RG: Finally, what are your long-term hopes for the IFComp?

SG: I'd like to see even more experimentation with the form. What crazy things can you do with IF and still have it be IF? I'd also like to see more games play with graphics and sound – I think there's a lot of untapped potential there.

Playing the games

To make playing and voting for the games easier, Stephen has created two Windows installer files which are both on our coverdisc. The first – IFComp2004.exe – contains all of the games, while the second – WinInterpreters.exe has all the interpreters you need to play the games. What you need to do is run both installers, and then you'll be able to play a game by double-clicking them. Easy, or at least it should be. If you have any problems, there's an accompanying readme file that handily explains everything in full.

For further information, please visit the competition website at **http://ifcomp.org**. You'll also find the voting pages at the location. Note that all votes must be submitted by 15th November and the results will be revealed shortly after.

Games list

The full list of competition entries, listed under the language they were written with

TADS 2 GAMES

A Light's Tale, by vbnz
Kurusu City, by Kevin Venzke
Magocracy, by Scarybug
PTBAD 3, by Xorax
Redeye, by John Pitchers
Ruined Robots, by nanag_d
The Realm, by Michael Sheldon
Who Created That Monster?, by N B Horvath
Zero, by William A Tilli

Z-CODE GAMES

All Things Devours, by half sick of shadows
Bellclap, by Tommy Herbert
Blink, by Ian Waddell
Blue Chairs, by Chris Klimas
Blue Sky, by Hans Fugal
Chronicle Play Torn, by Algol
Escape from Auriga, by Florin Tomescu
Gamlet, by Tomasz Pudlo
Goose, Egg, Badger, by Brian Rapp
Identity, by Dave Bernazzani
Mingsheng, by Rexx Magnus
Murder at the Aero Club, by Penny
Order, by John Evans
Splashdown, by Paul J Furio
Stack Overflow, by Timofei Shatrov
Sting of the Wasp, by Jason Devlin

The Big Scoop, by Johan Berntsson
The Great Xavio, by Reese Warner
The Orion Agenda, by Ryan Weisenberger
Typo, by Peter Seebach & Kevin Lynn

HUGO GAMES

Trading Punches, by Sidney Merk

TADS 3 GAMES

I Must Play, by Fortytwo
Square Circle, by Eric Eve

GLULX GAMES

Luminous Horizon, by Paul O'Brian

ADRIFT GAMES

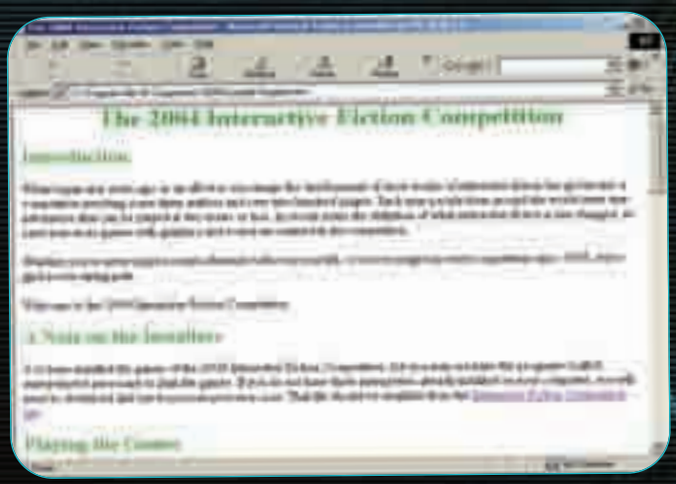
A Day In The Life Of A Super Hero, by davidw

ALAN GAMES

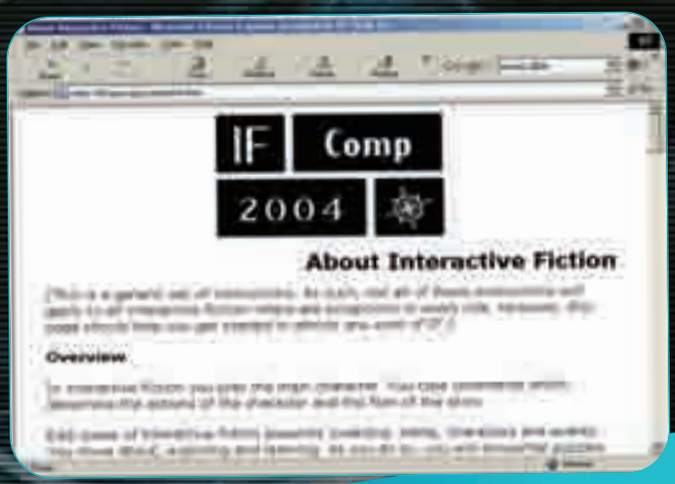
Zero One, by Shed

WINDOWS GAMES

Getting Back To Sleep, by IceDragon
Ninja v1.30, by Dunric



For detailed information on how to run the games, refer to the readme file provided with the installers



If you're not familiar with text adventures, the website features a detailed overview of the genre

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41	42	43	44	45
46	47	48	49	50
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C Visit our website at: **www.livepublishing.co.uk** and complete the form online

I am not advertising pirated, pornographic or any other kind of illegal software and my advert is both honest and legitimate. RG reserves the right to refuse or alter adverts at the discretion of the management. RG cannot be held responsible for the condition or quality of goods advertised. Your advert will be processed on receipt and will appear a.s.a.p. subject to space and availability.

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If you are a business advertiser looking to place a display advert, please call Danny on 01625 855086

SELL YOUR RETRO GEAR - 30 WORDS FREE!

SINCLAIR FOR SALE

Boxed ZX Spectrum for sale – In mint condition. I also I have loads of games and other retro Speccy stuff, mags etc... Email me at mc_greaves@hotmail.com for pictures and information.

Several Speccy mags for sale – Condition of covers is variable. For more information please email rdisky@hotmail.com

Over 250 unboxed Spectrum games for sale – Including some titles by Ultimate. Tested and working. Offers around £125 please. Contact Neil on 07782 159 616 or neilbailey626@yahoo.co.uk

Looking for new software for your Speccy? – Look no further, as Cronosoft offer a range of titles supporting all Spectrums, including the 16K model! Log on to www.cronosoft.co.uk for more details

Shadow of the Unicorn – With 16K interface boxed with map and instructions. Good condition. £15 or nearest offer. Email ianjonesuk@supanet.com

Knightlore and Nightshade – In compilation with four other US Gold Games. £15 or nearest offer. Email ianjonesuk@supanet.com for more information

COMMODORE FOR SALE

Bubble Bobble for the C64 – UK version, boxed with instructions, good condition. £1 + 65p insured P&P. Email garethcrowley@amiga.e7even.com for photo and details

Mega C64 tape games for sale – Approx 23 and also a game cartridge. I also have a few c64 game magazines. £25 or swap for Final Fantasy on PC. Email evil_elfs@hotmail.com for more information

For sale C64 – With gun and games. Open to offers. Email me at glyn@hewitt.abelgratis.com

Producing new C64 games! – Selling an exciting new range of C64 games, coming soon! More information can be found at http://generationxgames.tripod.com

Commodore 64 SCART cable – 2m, high quality, fits C64, C128, SX-64, VIC-20, Plus/4, etc. £8 + £1 postage. PayPal or Nochex accepted. Phone 07713 630087 or email jp.hayward@virgin.net

Commodore Scene magazine – For all C64, C128, GEOS and emulator users. Subscribe today! Further details are at www.commodorescene.org.uk

Centipede on Cartridge – by Atarisoft for the Commodore 64, still sealed! £7 + P+P (£1 UK), PayPal accepted. Email ants2000@hotmail.com

Wanting the latest C64 software? – Protovision is for you! Check us out at www.protovision-online.de

COMMODORE WANTED

Does anyone have Leisure Suit Larry – Lounge Lizard or Street Rod? – Willing to trade for other Amiga games. Email ian_gryglewski@yahoo.com.au

I'll pay £10 for the Quicksilva C64 game of Central ITV's series Magic Micro Mission – Must be in good condition. Please email me at qdos@studio.co.uk

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Atari 8-bit SCART cable – 2m, high quality, fits 800, 600XL, 800XL, 65XE, 130XE etc. £8 + £1 postage. PayPal or Nochex accepted. Phone 07713 630087 or email jp.hayward@virgin.net

NINTENDO FOR SALE

Dragon Warrior Monsters 2: Tara's Adventure and Dragon Warrior Monsters 2: Cobi's Adventure for sale on Gameboy Color – £45.00 each. Email me at john.bates6@ntlworld.com for further information

Perfeck Dark for the N64 – USA version. Boxed with instructions. Email for price and postage details – patrickmc_court@hotmail.com

NES games for sale – Zelda 2 gold cart, Paperboy 2, The Fantastic Adventures of Dizzy, and Krusty's Fun House. All boxed with instructions and in good condition. Open to offers. Also PC Engine wanted with games. Email me at rburnos@aol.com

Various SNES games – About 12 for sale. Email for list rburnos@aol.com

N64 Console for sale – Comes with all leads and connections. One controller, Expansion Pack, WWF Warzone cartridge & Banjo Kazooie – £25. Email Gazzer979@aol.com or telephone 0208 427 5847

The Legend Of Zelda: Ocarina Of Time for the N64 – UK version, boxed with instructions, good condition. £5 + £1.50 insured P&P. Email garethcrowley@amiga.e7even.com for photo and details

SEGA FOR SALE

TreasureLand Adventure by Treasure! – For the Sega MegaDrive, Japanese (not Asian) version, boxed with instructions. In excellent condition. Just £20 + £1 insured P&P. Email garethcrowley@amiga.e7even.com for photo and details

Great Basketball for the Master System – US import – nice! Boxed and in good condition. Just £1.50 + £1 insured P&P. Email garethcrowley@amiga.e7even.com for photo and details

Daytona USA for the Saturn – Japanese version, boxed with instructions and in good condition. £3.50 + 85p insured P&P. Email for garethcrowley@amiga.e7even.com photo and details

Job lot for sale! – Mega CD boxed with one game, Saturn boxed with eight games, two Megadrives with 13 games, a Master System with eight games and a light-gun, and a Nintendo 64 with four games. Only £200. Email monkiki@eircom.net

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Sega Dreamcast – With 29 games, six memory cards, and a steering wheel. Plays VCD movies, includes remote control. £400. Also for sale, 47 USA and Japanese games. Contact me for more details. Telephone 0121 555 5477

Mint condition, factory sealed NHL 96 – For SEGA Genesis, will work on a PAL Megadrive too. Just £2 including postage. Email thx1138@ntlworld.com or telephone 01234 302 416

Thunder Force IV – For the Megadrive. UK version, boxed with instructions, good condition. £8 + £1 insured P&P. Email garethcrowley@amiga.e7even.com for photo and details

Wonder Boy In Monster World – For the Master System, UK version. Boxed and in good condition. £4 + £1 insured P&P. Email garethcrowley@amiga.e7even.com for photo and details

X-Men Vs Street Fighter – For the Sega Saturn, box-set edition. Japanese, boxed with instructions and RAM cart, in good condition. £20 + £1.50 insured P&P. Email garethcrowley@amiga.e7even.com for photo and details

Sega Dreamcast Sonic 10th Birthday pack – Contains Sonic Coin, Sega booklet and Sonic Adventure game. Brand new, PayPal welcome. P&P free – £20. Email peter@jamesmerry.freeserve.co.uk for more information

SEGA WANTED

Sega Megadrive games wanted – Super Fantasy Zone, Sonic Compilation, Fire Shark and more. SNES Games also wanted. Yoshi's Island and more. Please text or phone Daniel 07786364996. Will do deals!

Wonderboy in Monster Land – For the Master System, also card games wanted. Email rburnos@aol.com

Sonic action figure – 11 inches tall or 27cm. Brand new. PayPal welcome. £17.99 P&P (£4.90 for UK). Email peter@jamesmerry.freeserve.co.uk

Sega Saturn Games Wanted – Will pay good money. I am after many games! Please get in touch with me if have any Saturn Games. Email danieledwards14489@yahoo.co.uk

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Ultima Collection parts 1 to 8 – For PC CD-ROM, UK version, CD in a case, good condition. 50p + 65p insured P&P. Email garethcrowley@amiga.e7even.com for photo and details

For sale and trade – I have 350 retro games at www.dieterkoenig.at/ccc/. I am always interested in trades, all 8-bit systems!

Acetomic MPU 1000 – With five boxed games for just £40. Email me at glyn@hewitt.abelgratis.com

I'm selling off my collection of retro adventure game books – Including Lone Wolf, Fighting Fantasy and many other series. Email airport_master@yahoo.co.uk for the complete list

Sim City for Acorn Archimedes – UK version, boxed with instructions and in good condition. £5 + £2 insured P&P. Email garethcrowley@amiga.e7even.com for photo and details

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HELP! Surplus stuff to sell/swap – Amiga 500, C64, BBC B plus view chip, boxed view printer driver generator, Micro Vitec Cub monitor, Phillips green screen monitor, Panasonic printer ribbon KXP-1080. Email georgemurcott@hotmail.com

OTHER WANTED

In 1995 a special episode on Gamesmaster was released on VHS – Please help me find a watchable copy. Call 01233 640 171 after 7pm and ask for Adam. Thanks!

Golden Axe full price original wanted for the IBM PC – Plus any other disk originals for the ZX Spectrum, Commodore 64 and Amstrad. If you have any copies in good condition then name your price. A mint copy of the Amiga version is also needed. Email gstubberfield@yahoo.com or telephone 07745 528 052

PC Engine wanted with games – Especically Wonderboy in Monster Land. Normal, Turbo Graphics or Duo CD. Email rburnos@aol.com

Sharp MZ-80A/B/K or 811 wanted – Another person looking for Sharp computers. Working condition, cosmetic condition less important. Please email me at SharpOwl27@yahoo.co.uk

PC Moniter swap – For Spectrum 128 +2 monitor in good condition. Email me at mortalkombat1978@hotmail.com

RETRO GAMING CLUBS

Retro Gaming Interest Group – Based in Ingham, Australia. For further information about us, please phone 0431 815 151

Hello, I'm looking for some members for my Internet forums at www.ingomania.co.uk – Talk about anything retro! (NES Classics layout coming soon, and extended retro zone)!

Dreamcast news and reviews – Past and present (including new imports), with open discussion forums. Check out http://www.dreamcast-lives.tk

Interested in the ZX Spectrum? – Check out ZXF – THE free online publication for all of your Speccy needs. Issue 8 is out now with all the news and views that matter. Download your copy from www.cwoodcock.co.uk/zxf

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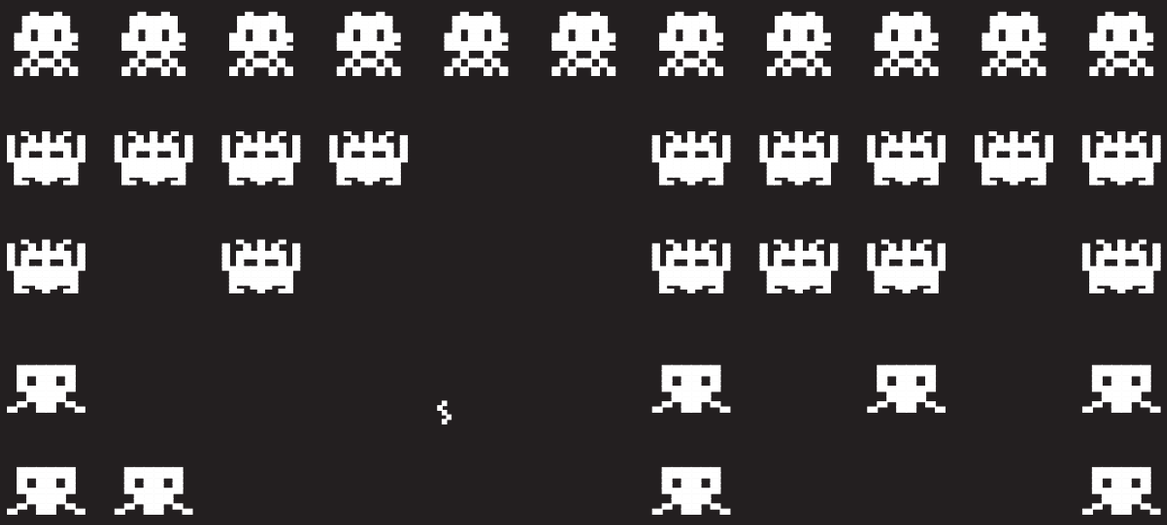
Held on Saturday 6th November 2004 at the Alec Bussey Scout Centre, Rowington Road, Norwich. Free admission and parking. Opens 10am through to 4pm as was last year. Book for evening meal. For information, head over to **www.speccyverse.me.uk/orsam/**

eMag



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When the pixel was king

ISSUE 10 HITS THE SHELVES 23RD NOVEMBER 2004

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RETRO GAMER

Endgame

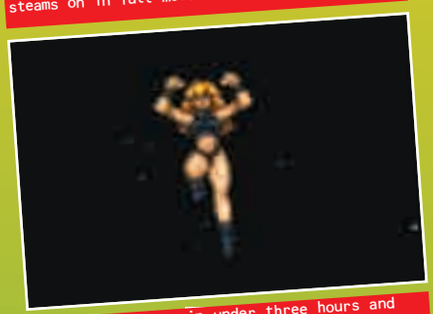
As Super Metroid draws to an explosive conclusion, space heroine Samus Arran narrowly survives a desperate last stand against Mother Brain. But unable to pause for breath, she then has to flee planet Zebes before the whole thing goes up in a mad fractal explosion extravaganza! Another eventful day in the life of an intergalactic bounty hunter...

After Mother Brain reveals her true form, Samus gets a power boost and finishes her off

It's not over yet though, and with Mother Brain pushing up daises, the planet is set to blow

Samus barely makes it off the planet in time, and the universe is lit up by Zebes' demise

Samus barrels out of the inferno as her craft steams on in full mode 7 glory



Complete the game in under three hours and Samus will reward you with a little skin...